Volume VII, No. 11 66 November, 1931

SOAP

LIBRARY

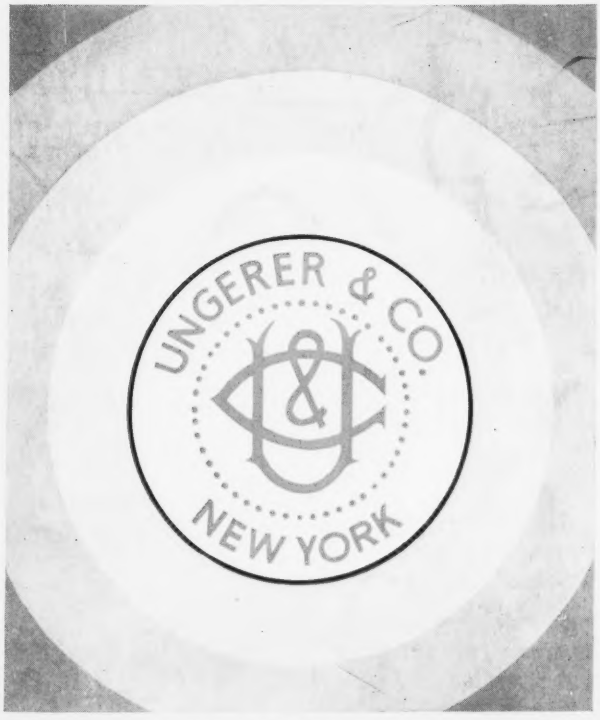
with which is included an

Insecticide & Disinfectant Section

Published by MACNAIR-DORLAND COMPANY, INC., 136 Liberty Street, New York

1932

FLY SPRAY ODORS



DO you contemplate adding to your line of perfumed spray materials next season? Is your present fly spray or disinfectant odor satisfactory?

These questions should be considered and decided this year—*not* in the Spring of 1932. Give your product at least an even chance for repeat business by conducting intelligent, unhurried experiments in 1931 for *next* year's business.

We can help you! Our line includes a varied assortment of truly fine fly spray odors, distinctive and inexpensive, as well as a number of water soluble types of proven merit. Call on us for samples, prices and information.

UNGERER & COMPANY
NEW YORK

FALCON

LIQUID TOILET SOAP

UNIFORM
DEPENDABLE

QUALITY
STANDARDIZED

IN EVERY respect *a truly fine* Liquid Toilet Soap! Absolutely uniform and dependable in quality and concentration. It's made from *the finest and purest ingredients obtainable,* carefully tested for chemical content, and manufactured into soap by the Laboratory Method in a large, modern and efficiently equipped plant.

Your business will grow if your customers *know they can depend upon the quality of your soap* year in and year out.

Every drum contains the specified *true soap content and every ounce of soap is mild and neutral.* Write us for samples and prices.

FALCON
Deodorizers

We also manufacture air sweetening Blocs and Crystals which purify the air. Falcon Blockettes are made for Urinals.

FALCON
Liquid Waxes

We make Falcon Liquid Waxes and a complete line of Floor Maintenance Compounds which will save money and labor.

FALCON
Scrub Soap

We specialize in Scrubbing Compounds and Cleansers for all types of Flooring. We will be glad to recommend the best soap for each purpose.

FALCON
Shampoo

Our line of Sanitary Supplies is complete. We make Falcon Shampoo, Insecticides, dry or liquid, and many other high grade products.

EAGLE
SOAP CORPORATION

25 E. JACKSON BLVD., CHICAGO, ILL.

DARCO IS AN EXCEPTIONALLY EFFICIENT ACTIVATED CARBON for the removal of objectionable color and odor from Vegetable and Animal Oils and Fats. It is neutral, filters readily, has a low retention value, and is economical to use.

Write us for a liberal free sample of DARCO and instructions for testing.

This Trade-mark *On Every Carton*

"It Goes Further"

DARCO SALES CORPORATION

45 East 42nd Street

New York, N. Y.

Telephone:
VAnderbilt 3—1592

Cable Address:
DARCOSALE, NEW YORK

THE NEWPORT AROMATICS

for soap

COUMARIN, SCUR

Crystals or Powder

Known in every manufacturing center of the world as a product distinguished for its strength and purity. No finer quality is made.

NEWPORT DIMETHYL HYDROQUINONE

In every soap formula containing Coumarin less can be used if Dimethyl Hydroquinone is employed. The Dimethyl Hydroquinone reinforces the Coumarin without changing the perfume of the finished soap, is lower in cost, does not discolor, is stable in soaps and alkalies and has real fixative value.

Newport Chemical Works

Incorporated

Passaic, New Jersey

Phone PAssaic 2–3275

Sole Agents for
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de Rhone-Poulenc
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Phone WAlker 5—6166

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Say you saw it in SOAP!

SOAP

Reg. U. S. Patent Office

with which is included

Insecticide & Disinfectant Section **Oil & Fat Section**

Volume VII November, 1931 Number 11

«

INSECTICIDE and Disinfectant Section, which is included as a department of every issue of SOAP, begins on page 77. Oil and Fat Section begins on page 117. These sections contain news, articles and editorial opinion of particular interest to their respective industries.

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Published monthly on the 15th by

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Ira P. MacNair Grant A. Dorland

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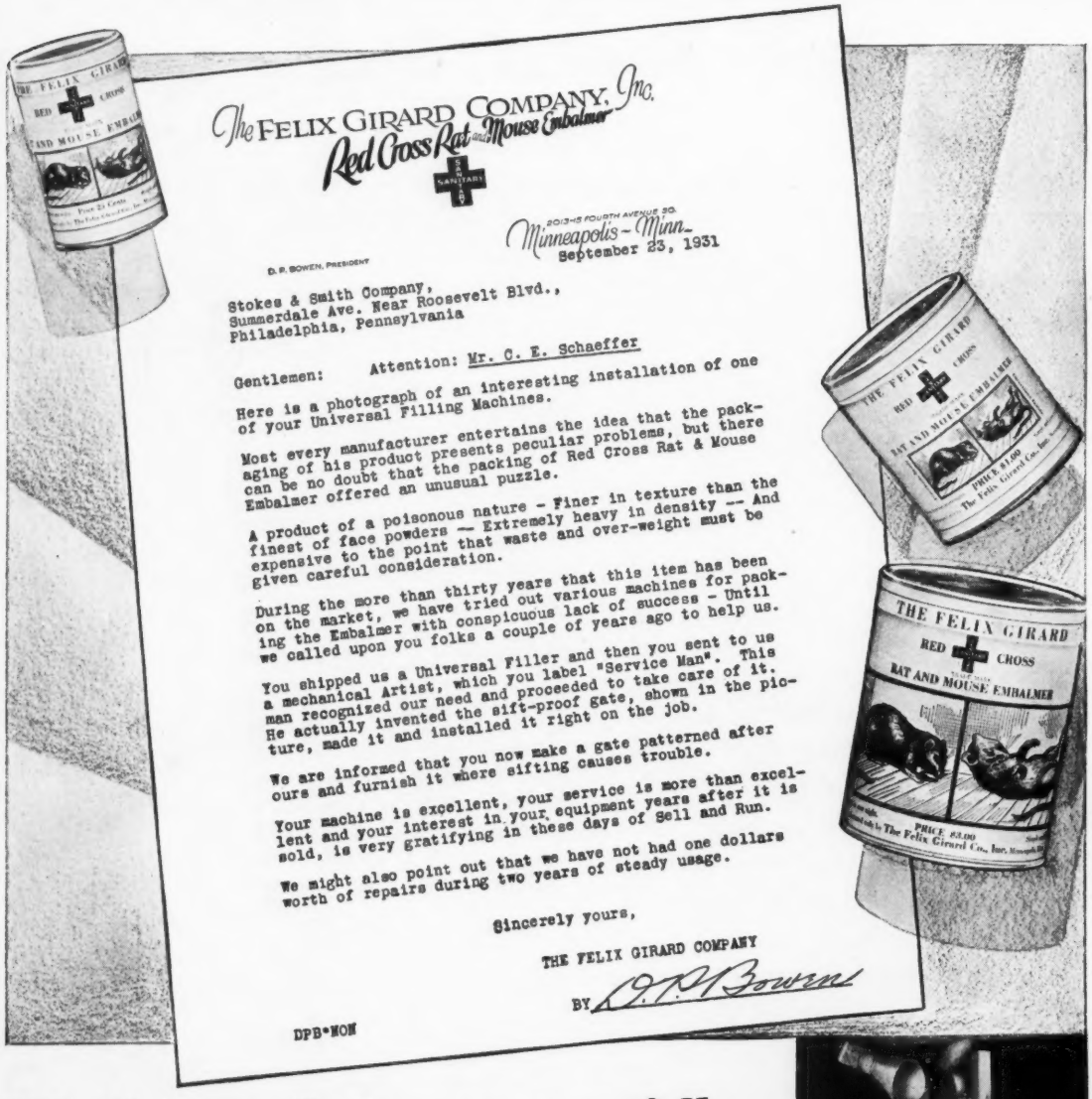
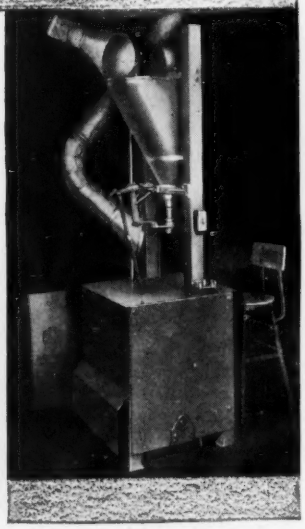

The FELIX GIRARD COMPANY, Inc.
Red Cross Rat and Mouse Embalmer
2013-15 FOURTH AVENUE SO.
Minneapolis - Minn.
September 23, 1931
D. P. BOWEN, PRESIDENT
Stokes & Smith Company,
Summerdale Ave. Near Roosevelt Blvd.,
Philadelphia, Pennsylvania
Gentlemen: Attention: Mr. C. E. Schaeffer
Here is a photograph of an interesting installation of one of your Universal Filling Machines.
Most every manufacturer entertains the idea that the packaging of his product presents peculiar problems, but there can be no doubt that the packing of Red Cross Rat & Mouse Embalmer offered an unusual puzzle.
A product of a poisonous nature - Finer in texture than the finest of face powders — Extremely heavy in density — And expensive to the point that waste and over-weight must be given careful consideration.
During the more than thirty years that this item has been on the market, we have tried out various machines for packing the Embalmer with conspicuous lack of success - Until we called upon you folks a couple of years ago to help us.
You shipped us a Universal Filler and then you sent to us a mechanical Artist, which you label "Service Man". This man recognized our need and proceeded to take care of it. He actually invented the sift-proof gate, shown in the picture, made it and installed it right on the job.
We are informed that you now make a gate patterned after ours and furnish it where sifting causes trouble.
Your machine is excellent, your service is more than excellent and your interest in your equipment years after it is sold, is very gratifying in these days of Sell and Run.
We might also point out that we have not had one dollars worth of repairs during two years of steady usage.
Sincerely yours,
THE FELIX GIRARD COMPANY
BY D. P. Bowen
DPB-MOM
THE FELIX GIRARD
RED CROSS
RAT AND MOUSE EMBALMER
PRICE $3.00

"Until we called upon you folks a couple of years ago . . . . "

The letter reproduced above is an unsolicited testimonial. Hundreds of Stokes & Smith customers write similar letters every year. Their filling problems vary, but Stokes & Smith Company feels that these letters are convincing proof that the high efficiency of their Universal Filler never varies — regardless of any trial to which it may be put.



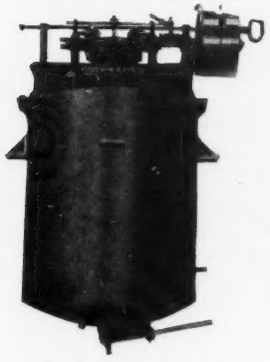
STOKES & SMITH COMPANY

Filling Machines *Carton Sealing Machines*
Wrapping Machines

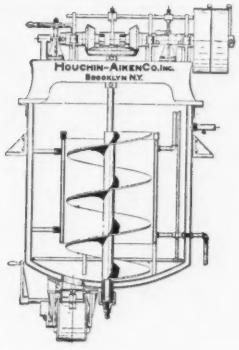
FRANKFORD, PHILADELPHIA, PA.

British Office: 23, Goswell Road, London, E. C. 1

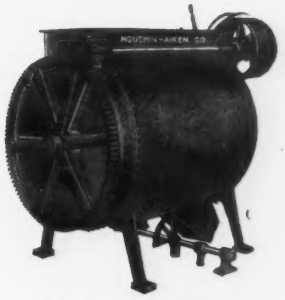
NEW and *USED* HOUCHIN SOAP MACHINERY



Perfection Crutcher
Sliding Gate Valve

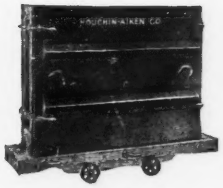


Perfection Crutcher Cross
Section View Plunger
Type Valve

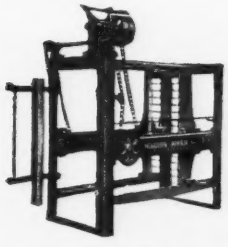


Horizontal Crutcher

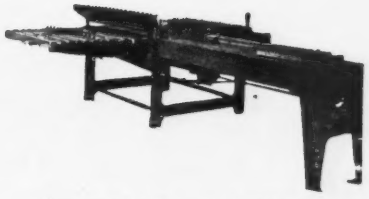
Empire State
Press



Standard
Soap Frame

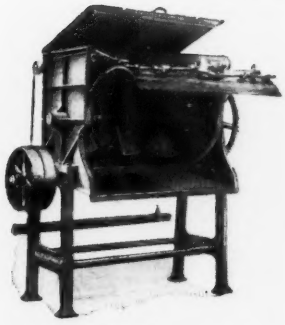


Automatic Power
Slabber

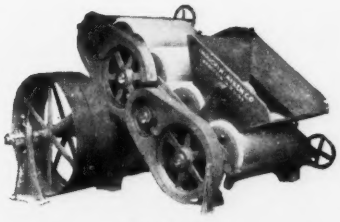


Automatic Power Cutting
Table

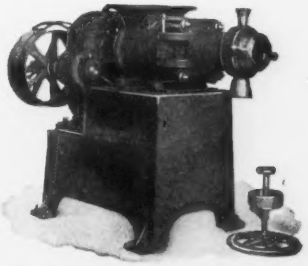
OUR SOAP DIES WITH PLATED SURFACES STAND UP



Ideal Amalgamator



4-Roll Mill
Mills built with 3 to 12 Chilled
Iron or Granite Rolls



Spur Gear 10" Screw Plodder
Plodders furnished with 2½"
to 12" screws.

America's Leading Soap Machinery House

Write Us For Information Regarding *Mill-less* Method for Making Toilet Soap

HOUCHIN MACHINERY CO., Inc.

FORMERLY HOUCHIN-AIKEN CO., INC.

HAWTHORNE NEW JERSEY

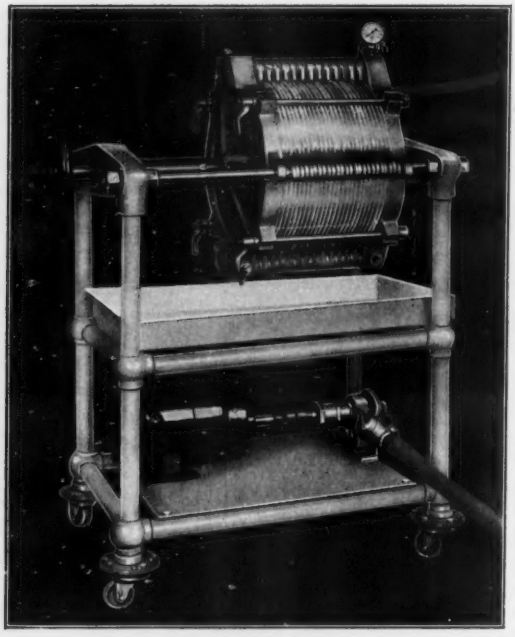
Say you saw it in SOAP!

NOW YOU ARE ASSURED OF THESE UNPARALLELED

RESULTS

IN BRILLIANCY AT HIGH SPEED

WITH THE NEW Hy-Speed ASBESTOS DISC FILTER



Made in sizes from 2 to 100 discs

IMPORTANT

"Hy-Speed" Asbestos Filter Discs can be supplied to fit any disc filter. Send for sample discs, specifying exact diameter and type of liquid. Make your own comparison between this and your present filter medium.

RESULTS NEVER BEFORE thought possible have become a matter of everyday, routine production with this miraculous new *"Hy-Speed"* Filter.

We have PROVED to the manufacturers of hundreds of different liquid products that this new *"Hy-Speed"* engineering feat has established new standards of speed, efficiency, and economy in filtering methods.

We have taken their products . . . and always those of their products which have presented some *difficult filtering problem* . . . and polished them to a degree of CRYSTAL CLEAR BRILLIANCY NEVER BEFORE OBTAINED by any method, fast or slow.

AND we have attained this brilliancy AT GREATLY INCREASED FILTERING SPEED . . . stepping up production to many times the daily capacity of ordinary filters.

We want the opportunity to PROVE THIS TO YOU . . . ON YOUR OWN PRODUCT . . . without cost, obligation or trouble on your part. Send a sample of your product for this test.

ALSOP also Manufactures "Hy-Speed" Portable Electric Mixers, which Clamp to Any Tank, Mix All Liquids . . . "Hy-Speed" Asbestos Filter Discs for all Disc Filters . . . "Hy-Speed" Bottle Fillers, Portable, Simple to Operate, Easy to Clean . . . "Hy-Speed" Internal Pressure Filters, Water Filters, Asbestos Gravity Filters . . . "Hy-Speed" Portable Electric Pumps . . . "Hy-Speed" Insecticide Manufacturing Units . . . "ALSOP" Glass Lined Storage and Mixing Tanks to 200 gallons capacity. NO ALSOP UNIT REQUIRES INSTALLATION EXPENSE. WRITE FOR CATALOGUE.

ALSOP ENGINEERING CORP

39 West 60th Street New York City

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DOW CAUSTIC SODA

SOLID — FLAKE — LIQUID

Our large manufacturing facilities for the production of a high quality Caustic Soda make us a dependable source of supply to manufacturers of soap and kindred products. We will gladly quote on your requirements in flake, solid or liquid form in any quantity.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

Branch Sales Offices:

60 East 42nd Street, New York City — Second and Madison Streets, Saint Louis

Other Dow Products: Coumarin • Paradow (Pure Paradichlorbenzene) Methyl Salicylate • Methyl Anthranilate • Phenol U. S. P.

Say you saw it in SOAP!

FRESH CUT ROSES IN SOAP?

You can have this at very low cost by using

ROSAS

the newest and most successful perfume oil in its class.

It is also suitable for covering disagreeable odors.

FELTON CHEMICAL COMPANY, Inc.

Chicago, Ill., Office
1200 North Ashland Ave.

Executive Offices and Factory
599 Johnson Ave., Brooklyn, N. Y.

Manufacturers of

Aromatic Chemicals, Natural Isolates, Perfume Oils, Artificial Flower and Flavor Oils

Say you saw it in SOAP!

for fine theatre sprays

WATER SOLUBLE PERFUMES

A completely new line of water soluble perfumes, especially made for use in theatre sprays, has been developed in our laboratories. These new products, which are made in wide variety of odors, may be used from two to four ounces to a gallon, depending on the strength desired in the finished spray. It is only necessary to mix them with tap water. The resulting solution will be practically clear and ***will not separate.*** These water soluble oils are available in three series—priced at $1.50, $3.00 and $5.00 per pound. A few suggestions are given below.

Special Offer—We have a limited quantity of Terpinolene available. This product at 17 cents per pound, will be found very effective in masking harsh chemical odors.

Suggestions

Narcisse
Oriental
Jasmin
Lilac
Rose

Etablissements
ALBERT VERLEY

Represented in the United States by

ALBERT VERLEY, Inc.

11 East Austin St. Chicago

Say you saw it in SOAP!

Monsanto Chemicals

for the Discriminating « « « Manufacturer

Soap and insecticide manufacturers who realize the importance of using only basic materials of the highest quality, specify regularly the following products of Monsanto manufacture:

Coumarin Monsanto

•

Methyl Salicylate Monsanto, U. S. P.

•

Phenol, U. S. P.

•

Cresylic Acid

•

Santochlor
(PURE PARADICHLORBENZENE)

CHEMICALS OF QUALITY
Monsanto
ST. LOUIS, U.S.A.

A BACKGROUND OF 30 YEARS OF MANUFACTURING

May we submit samples and quote?

Monsanto Chemical Works
ST. LOUIS, U.S.A.

Empire State Bldg. NEW YORK
Everett Station BOSTON
500 No. Dearborn CHICAGO
373 Brannan St. SAN FRANCISCO
Victoria Station House, Victoria St. LONDON, S. W. 1

Divisions:
Merrimac Chemical Co., Inc., Everett, Mass.
The Rubber Service Laboratories Co., Akron, Ohio
Graesser-Monsanto Chemical Works, Ltd., London, England

Say you saw it in SOAP!

Clifton Products Are EXPENSIVE!

Only the highest grade materials that money and long experience can buy are used in their manufacture.

Yet you pay nothing extra for their extra value. (In fact they often cost less than you have to pay for ordinary products.—Write us and you can easily check up.)

● FOAMWEL LIQUID SOAP

Made of pure white coconut oil and aged in cypress tanks. Never develops that soapy odor. Guaranteed of better quality than U. S. Bureau of Standards requirements.

● LIQUID SOAP CONCENTRATE

Anhydrous content 40%. Mix with 2 or 3 times as much water to make a soft, smooth liquid soap. The concentrate stays sparkling clear in cold weather.

● LIQUID SOAP BASE

Recommended for those manufacturers who have facilities to use the solid material. This base is clear as crystal and firm to the touch. A liquid soap made from it shows minimum settlement.

● SEMI-CASTILE LIQUID SOAP

Made from half olive oil and half coconut oil. Used where an extra bland and unguent soap is required. Recommended for delicate hands.
ALSO ALL OLIVE OIL SYRUP AND BASE

● PINE SCRUB SOAP

For glossy surfaces. A syrup-like bland neutral cleanser. Made from pure vegetable oils—not foots. Never develops rancidity.

● CRESOLENE DISINFECTANT

A coal tar disinfectant made from the better grades of tar acids. Gives a snow white emulsion even in cold water. Most products of this type are coefficient 2-3. Cresolene tests 3.62.

● CRESOL COMPOUND-CLIFTON

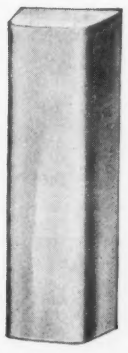
Used extensively by hospitals. Also on approved list Bureau of Animal Industry. Most compounds make a clear solution up to 5 or 10%. This product gives a clear solution in all dilutions.

● PINE TREE DISINFECTANT

Pale amber. A few drops are needed to make an opaque, milky solution. Pure steam distilled pine oil used. This is a fragrant and efficient disinfectant as well as a deodorant and grease solvent.

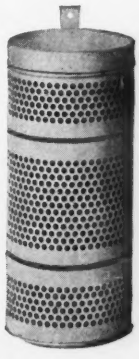
Also — Liquid Soap Dispensers, Deodorette Cakes, Fragrantaire Blocks and Wall Containers, Oil Soap, High Coefficient Disinfectants, etc.

These days in particular you owe it to yourself to be sure that you are actually getting the best value for your money. That's why we suggest you write us today.



TILTYPE SOAPER

DUODEK SOAPER



CLIFTON CHEMICAL CO., INC.
CLIFTON BLDG., 246 FRONT STREET, NEW YORK CITY

Say you saw it in SOAP!

The Package SPEAKS

What do *your* packages say?

Do they speak with authority—of the quality of the product within? Does their very appearance recommend them? Do their good looks claim attention, demand respect and invite purchase?

They should do all of that—for millions of people who daily enter retail stores are their audience.

Your packages are your advertisements. They should be worthy of this vast audience that can give or withhold approval—that sees them and thereby judges your product and the reputation of your firm.

Good looks of package, closure and label create the first impression that brings new users.

Efficiency and convenience create the lasting impression that means resales.

Anchor stands ready to assist you in the modernization of your packages—from the standpoint of looks, efficiency, and packaging economy.

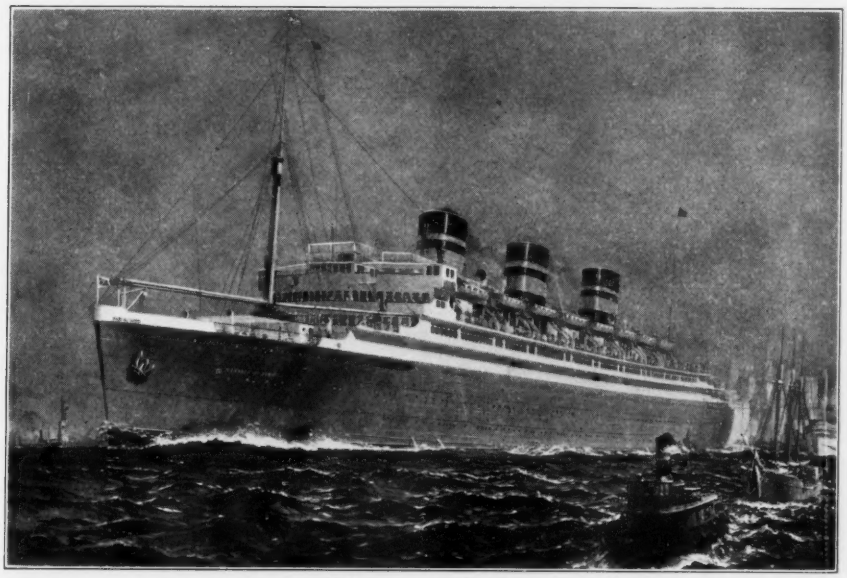
Anchor Cap & Closure Corporation

Long Island City, N. Y. **Toronto, Canada**

Branches in all principal cities

Anchor CONSUMER-APPROVED CLOSURES for every Packing Need

Say you saw it in SOAP!



"MONARCH OF BERMUDA"

make it a

SEA-GOING CONVENTION

next time . . .

MR. CHAIRMAN! Open your convention as New York harbor fades in the distance . . . continue it as you take your fill of playing, sightseeing and typical British luxury in Bermuda, the favorite play place of all the world.

There's an idea for your next convention. Two super-luxury liners are at your service, the new 28,060-ton turbo-electric "MONARCH OF BERMUDA" (in service Fall 1931) and the completely remodeled 25,750-ton "BERMUDA," now accommodating 700 passengers—ready to transport your entire group in true trans-Atlantic elegance . . . Grand Social Halls, large and small assembly rooms, private meeting rooms for executive conferences . . . ready to mix pleasure with business in spacious, lavish lounges, verandah cafes, swimming pools; in the gym and on the largest sports decks afloat.

In Bermuda, you can carry on at a number of hotels, including the new St. George, with its swimming pool, private beach and private golf course, and the famous Bermudiana, built in a lovely tropical garden facing directly on Hamilton Harbor.

The "Ayes" have it! Get started now . . . find out about the special low all-expense convention rates!

For information apply CONVENTION DEPARTMENT

FURNESS

Bermuda Line

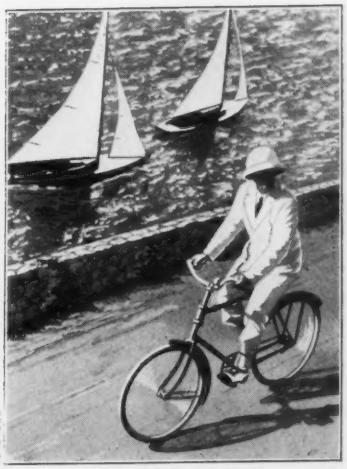
34 Whitehall St. (Where Broadway Begins) 565 Fifth Ave., New York
Or any Authorized Agent

BERMUDA

is only
48 hours
away

●

BOOK NOW
FOR 1932



Say you saw it in SOAP!

Keep his head up

and we'll all come through!

You recognize this man. He lives in your own town, not far from you . . .

Though faced with unemployment, he is combating adversity with courage. He has retreated step by step, but fighting. He has spread his slender resources as far as they will go.

This winter he and his family will need your help.

There are many other heads of families much like him in the United States. This winter all of them will need the help of their more fortunate neighbors.

This is an emergency. It is temporary. But it exists. It must be met with the hopefulness and resource typical of American conduct in emergencies.

Be ready! Right now in every city, town and village, funds are being gathered for local needs—through the established welfare and relief agencies, the Community Chest, or special Emergency Unemployment Committees.

The usual few dollars which we regularly give will this year not be enough. Those of us whose earnings have not been cut off can and must double, triple, quadruple our contributions.

By doing so we shall be doing the best possible service to ourselves. All that America needs right now is courage. We have the resources. We have the man power. We have the opportunity for world leadership.

Let's set an example to all the world. Let's lay the foundation for better days that are sure to come.

The President's Organization on Unemployment Relief

Walter S. Gifford

WALTER S. GIFFORD, DIRECTOR
Committee on Mobilization of Relief Resources

Owen D. Young

OWEN D. YOUNG, CHAIRMAN

The President's Organization on Unemployment Relief is non-political and non-sectarian. Its purpose is to aid local welfare and relief agencies everywhere to provide for local needs. All facilities for the nation-wide program, including this advertisement, have been furnished to the Committee without cost.

Say you saw it in SOAP!

THE BEST ROSIN SOAPS CONTAIN HERCULES I WOOD ROSIN

SOAP manufacturers have found that Hercules I Wood Rosin is a product which helps improve their product.

It is clean, free from dirt, and uniform. So that it will not become contaminated, it is packed in galvanized drums at no extra cost over wooden barrels. These drums will aid you, too, in keeping plant dirt from the rosin.

Hercules I Wood Rosin will reduce waste materially and save time in your plant, for it minimizes the residue in your kettles and aids in eliminating the reworking of settlings.

We want to talk with you and tell you more about Hercules I Wood Rosin.

NAVAL STORES DEPARTMENT

HERCULES POWDER COMPANY
INCORPORATED

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SOAP

VOLUME SEVEN NUMBER ELEVEN

The Six Hour Day

ADVOCATES of the five-day week have long maintained that this is one of the cures for overproduction and unemployment. We now hear of considerable serious consideration of the six-hour working day as a means to the same end. Five six-hour days per week,—thirty hours! To those who have or do put in a nine or ten hour day, six days per week, the idea of a thirty-hour week is a trifle fantastic. However, there is no denying that the trend is steadily toward shorter working hours. Years ago, twelve hours was an average day. Today, it is eight. Who can say that tomorrow it will not be six?

The advancement of mechanical equipment and the steady improvement in the position of labor in modern industry have paved the way for a continuation of the trend toward shortened working hours. The universal thirty hour week may not be as fantastic or as far in the distant future as some of us are inclined to believe.

—o—

Spanish Essential Oils

FROM authoritative sources, comes the report that the production of essential oils in Spain and Algeria dropped to alarming proportions this year. Lavender, aspic, rosemary, thyme, geranium,—all have suffered to a much greater extent than anticipated as a result of the political and economic disturbances in Spain. In addition to political troubles, a severe drought took its toll among the wild plants of central and eastern Spain. Aspic production has been cut to thirty per cent of the output of 1930, rosemary is about sixty per cent, thyme is only one-third, origanum a fifth. The output of Algerian geranium is reported to be only 20,000 kilos this year against 120,000 last year.

The passing of Old Spain with its monarchy and its large vested landowners played havoc with all organized industry. The mere suggestion of freedom from the semi-feudalism of the old system, and the prospect of governmental land grants to the peasants brought chaos and disorder. The thought of laborious work such as cutting in the hot sun and bringing in the wild plants of aspic, thyme, and rosemary to the stills, lost its appeal. The day of ease and the ownership of land for those who had been in practical serfdom all their lives, had arrived. Cutting was forgotten and essential oil distillation demoralized.

With an acute shortage of stocks in the producing regions, almost anything can happen in the world markets for those oils which are affected. Production has fallen far below a proportionate decline in demand resulting from current economic conditions. A skyrocketing of prices is within the realm of possibilities, although the depreciated condition of Spanish exchange as far as the dollar is concerned may have a tendency to offset such a price movement. By the large consumer, especially the consumer who finds his stocks low at this time, the Spanish essential oil situation will bear close watching. It is also worth bearing in mind that with the

present political uncertainty throughout Spain, no assurance exists that production will show any material expansion in 1932 over the season just passed.

—o—

What Is A Good Liquid Soap?

WE have been raked over the coals by *The Manufacturing Chemist* of London for criticizing a formula for liquid toilet soap which they published in a recent issue. The formula called for the use of four parts of palm oil and one part of peanut oil, with mention of the addition of sugar, glycerine, calcium chloride, ethyl alcohol, and methyl alcohol. Our conclusions were that such a soap would not meet Government or private specifications in this country, and that it could hardly be classed as a "good liquid soap."

To begin with, we have no objection to the use of palm oil, although we know of liquid soap makers who do object to its use. It gives a liquid soap which is considerably more viscous than coconut oil soaps of the same soap content. A palm oil soap to the uninitiated looks like more soap for the money. The palm oil soaps are more bland, and inclined to be less irritating to delicate skins. They lather less freely, but give a more creamy lather. In the incorporation of twenty per cent of peanut oil, we see only an added difficulty in saponifying this oil.

Our criticism was not directed at the fatty base of the soap formula, but at the list of suggested added products. A "good liquid soap" needs nothing added to the saponified oil if it is properly manufactured. The added materials are aimed primarily to overcome some shortcoming in the soap itself resulting from incorrect manufacture or faulty selection of raw materials. As for a product added to thicken the soap,—this is a subterfuge to give the impression that the soap solution contains more anhydrous soap than is actually the case. Methods for thickening liquid soap are numerous and as old as liquid soap itself.

We are accused of destructive criticism and called upon to suggest a formula for a "first-rate liquid soap." We suggest for a liquid toilet soap a combination of coconut and olive oils, varying with the type of soap desired and the use to which it is to be placed, accurately saponified with caustic potash, settled and aged, chilled and filtered at low temperature,—and *without the addition* of any other product except the necessary amounts of distilled water and perfume if desired.

—o—

Germicidal Activity of Soaps

THE ability of ordinary soaps to kill germs has long been a topic of both commercial and scientific interest. The consensus of findings, as far as we can gather it, is that against certain types of organisms, soap is effective, but that against the very organism most commonly encountered on and about the human body, staphylococcus, soap will not kill. In a recent issue of the "Journal of the American Medical Association," Dr. John E. Walker states: "Soaps are highly germicidal against a number of pathogenic organisms. Their activity against streptococci, pneumococci, meningococci, diphtheria bacilli, influenza bacilli, and spirochaeta pallida is such that they compare favorably with many of the recently synthesized chemicals. . . . The standard textbooks on surgery and bacteriology, however, make no mention of these properties of soaps. This is partly because soaps are not germicidal against the organisms used as a routine in testing germicides; namely, typhoid bacilli and staphylococci . . ."

Private research engaged in by a soap maker recently in an effort to build up a good case of germicidal activity for his soaps, and conducted by one of the outstanding bacteriological laboratories of the country, failed to bring out that which had been hoped for. It left the impression that soap might have possibilities in a minor way in medicine, but as a practical germicide for the layman, little could be claimed for its germ killing powers. On the exterior of the human body, however, its ability to emulsify and remove the fatty and other films carrying the organisms, may be a factor in the practical prevention of infection in some instances.

In spite of the free use of soaps on the human skin, staphylococcus infection is ex-

(*Turn to Page* 61)

Dr. Guenther has just returned from six months in the essential oil producing regions of Europe, spending much time in the distilling centers in the mountains of Spain. For some years past, he has spent a number of months abroad each year studying conditions in the producing areas. He is eminently qualified to interpret authoritatively the present situation in Spanish oils. —The Editors.

A Possible Shortage of SPANISH ESSENTIAL OILS?

By DR. ERNEST S. GUENTHER
Fritzsche Brothers, Inc., New York

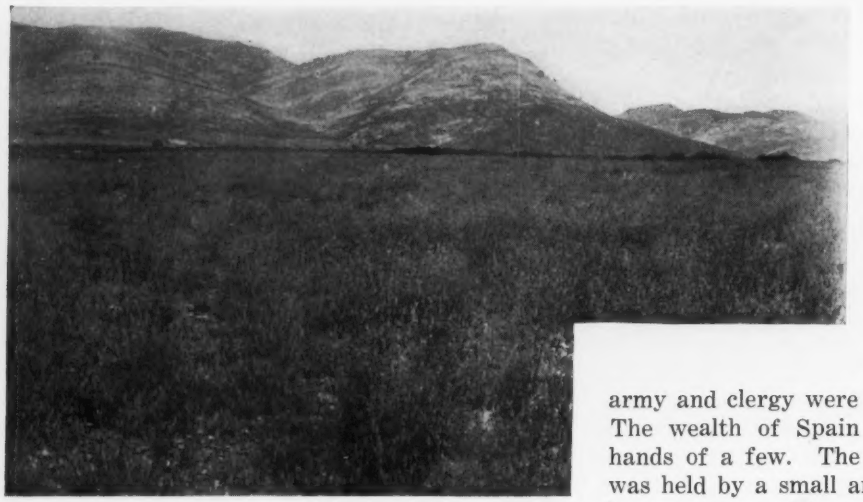
THE Spanish countryside, vast and immense, seems endless to the traveler who rides through the desolate and sunburned interior of Spain over good, new asphalt roads, the best and only tangible achievement of the late Primo de Rivera's dictatorship. Fertile, luxuriously fertile, is the small strip of land between the sea and the chain of mountains running along the shore of the Mediterranean from Barcelona, South to Malaga. There farmers have amassed wealth during years of labor and have created a paradise of orange and lemon groves, of vineyards and vegetable gardens. But crossing the chain of mountains toward the interior, one ascends to a plateau of poverty.

Whether traveling through the sun-beaten and barren plains of Castilia, through the hot and dusty La Mancha of Don Quixote fame, over the rugged, desolate mountains of Granada or through the more fertile but lonesome Andalusia, the traveler beholds an impressive picture: Endless plains under a beautiful, deep blue sky; hazy, blue-grey chains of mountains on the dim horizon, serene, arid and deserted mountains through which the roads wind. And after hours of traveling, a white-washed flat-roofed village, poor but clean dwellings; kind, polite and hard-working peasants. The landscape recalls Arizona, New Mexico. By no means a country of poor soil, it is a land potentially rich, but run down by centuries of indifference and political and economic neglect.

The very fertile soil of sunny Andalusia with its magnificent olive groves and wheat fields, developed by the industrious and agriculturally inclined Moors, proves conclusively what might be achieved in other provinces under proper economic conditions.

Granada's mountains and Castilia's wide plains were perhaps once partially covered with timber forests, but since the woods have apparently been cut down for purposes of ship building for the past few centuries, the climate of Spain has changed, bringing about in the interior a shortage of water and as a result, severely paralyzing agriculture. This is one of Spain's gravest handicaps.

THE history of Spain is both glorious and sad; its rise and fall, dramatic and tragic. Early Iberians were subdued by the Phoenicians and they in turn by the Romans. The decaying Roman Empire was overrun by the Visigoths who were conquered by the invading



A field of wild spike lavender with the rugged mountains in the background. There is no cultivation of these plants, wild growth being depended upon entirely

Moors. From 700 A. C. to 1492, Spain was principally Moorish. Subtle Moorish culture has left its impression even on modern Spain's life. The gentle Moorish rule which created a paradise in Spain, especially in Andalusia, was crudely destroyed by fanatic Christians who ruthlessly set out on one glorious adventure and built a globe-encircling empire in which the sun never set. Newly discovered America's gold flowed into the coffers of Royal Madrid in an apparently endless stream. It did not seem necessary for Spain to create an industry at home as had England and Holland. Spain became rich, not by the produce and exports of its industry, but by the influx of conquered gold.

The cream of Spain's youth, the best portion of its population, emigrated to Cuba, Mexico, Peru, Argentina and Chili to found an empire. The gold pouring into Madrid was used to build magnificent palaces, superb cathedrals and a splendid navy. Suddenly the stream of gold ceased to flow. Spain's youth returned, disillusioned, broken and diseased. The Armada went to pieces on Ireland's rocks. Unlike England and Holland, Spain had no industry to make up for the losses. Its gold was invested in beautiful cathedrals overshadowing poor homes in every village. Spain as a result, became and still is an impoverished nation, a poor but proud aristocrat, living on the glory of its past.

NORTHERN and Central Europe had created industries. Machines and mass production required and brought about a more equal distribution of wealth. England discarded the old feudal system 300 years ago; France, 150 years ago during the great Revolution; Germany in 1848; Russia in 1917; and finally, Spain in 1931. Until this year, Spain's political and economical system was principally feudal. Aristocracy, army and clergy were the support of the throne. The wealth of Spain was concentrated in the hands of a few. The greatest part of the land was held by a small and powerful group of rich land owners. There were relatively few independent farmers, the majority of the peasants being poor farm hands and tenants living in a sort of half-serfdom on the estates of the mighty.

The industrialization of Catalonia in the Northern part of Spain and the spread of industrial liberalism and democracy together with the coming of an urban middle-class, shook Spain's feudal system. These are the deeper motives which must be realized before we can understand the profound change which the Revolution of 1931 has brought about in the essential oil industry in Spain. Perhaps this is not correctly referred to as an industry since Spanish essential oils as a whole are produced in rather crude migratory direct-fire stills scattered over the extensive producing regions. There are no regular factories in Spain for the distillation of oils from plant material except one or two rather small city localities where some of the crude oils are brought from the field stills for rectification. This is true of Oil of White Thyme and Oil of White Origanum which are obtained by rectifying Oil of Red Thyme and Oil of Red Origanum.

In general, the distillation of the plant material because of the peculiar conditions existing in Spain must be carried out right in the fields and mountains. The plants grow wild with the possible exception of an insignificant experimental plantation of spike lavender. There are no plantations in Spain from which the plant material can be obtained. The exceedingly low prices of all Spanish essential oils, which until now have certainly been below actual values, render it impossible to lay out regular plantations which are costly, requiring investments of large capital.

LACK of knowledge of pure Spanish essential oils on the part of most chemists, unreasonable price cutting by professional buyers, coupled with the ignorance of both of the high merits of *pure*

Spanish essential oils in soap have caused such widespread and common adulteration of these oils by exporters and importers that honest producers in Spain have to fight to stay in business. At any rate, they have no capital available with which to start regular plantations of essential oil-bearing plants.

As it is, the plants grow wild on the sunny plains and hillsides of the interior of Spain, remote from towns and villages, far from the beaten track. In provinces where there is little agriculture due to excessive dryness of the soil or where estates are held by big land owners, the poor tenants and farm hands depend for their livelihood upon cutting of plant material and selling it to distillers. This plant cutting is a very difficult and tedious task necessitating labor under the burning sun of Spain from morn 'til night; bending, for twelve or fourteen hours a day to cut 300 or 350 pounds of small plants, which load is transported on the backs of donkeys over stony and steep trails 10 to 20 miles long, to the nearest still. All of this for 50c. a day! This indeed is inhuman and certainly not in accord with the modern conception of civilization. It is no wonder that those poor farm hands were the first to rebel and turn radical when the Revolution began.

When the plant material is brought to the stills it is weighed out under the supervision of the cutters and distillers. Then, as a rule, the plants are paid for in cash by the foreman who thus acts as chief agent for the owner of the stills. The foreman of each still not only controls the cash, but he also has absolute control over the yield of oil and can easily deceive his employer by reporting lower yield or the arrival of larger quantities of plant material. It is difficult for the owner of the organization to keep in close contact with the work because the stills are in remote localities and the yield of oil varies considerably with weather, temperature and region. Normal profits for distilling Spanish essential oils are very limited due to competition, adulteration and low world-market prices. For this reason it is easy to understand what a risky enterprise the distilling of Spanish essential oils is. In fact it can readily turn into a complete failure. To be successful it is essential to have a very thorough organization, an intimate knowledge of every region and its normal yield of oil and familiarity with the mentality and honesty of the farm laborers. Continuous supervision of the stills and frequent and unexpected trips to the producing regions are necessary. Such supervision puts a heavy strain on the owner of the organization during the harvest as he is travelling almost continually from one still to another. There are a number of Spanish essential oil producers, the largest of whom owns more than 100 migratory stills.

EVERY year, preliminary to the distillation period, an exact survey of the territory must be made, involving long and tiresome negotiations with the cutters about plant prices. Then a strategic plan for placing the stills is layed out. The heavy stills which are stored in villages and towns during the winter are then transported to the mountains and set up in a suitable hole dug in the ground. This is usually done on a slope. Beneath the still runs a horizontal cylindrical shaft accessible from without for feeding the fire. Thus, the still resting in the ground is heated by direct fire below. The proper setting up of the stills, simple as it may seem requires great skill and experience. It is usually done by expert workmen in the employ of the organization. If everything is not just right more fuel than normal is necessary and consequently the cost price of the oil is increased and as explained an increase of only 10 per cent might be prohibitive and render the whole distillation campaign a financial failure.

Despite all previous arrangements with the plant cutters, the distillers have difficulty in securing the plant supply and this usually means a

Gathering aspic, thyme, and other essential oil bearing plants is hard work in the hot sun of Spain. Cutting is all done by hand

fight for control of plant material in certain valleys or districts. One distiller tries to freeze out the other by cutting him off from the plant supply which can be done by paying higher prices to the cutters. This, of course, is very dangerous and often ruinous to the business.

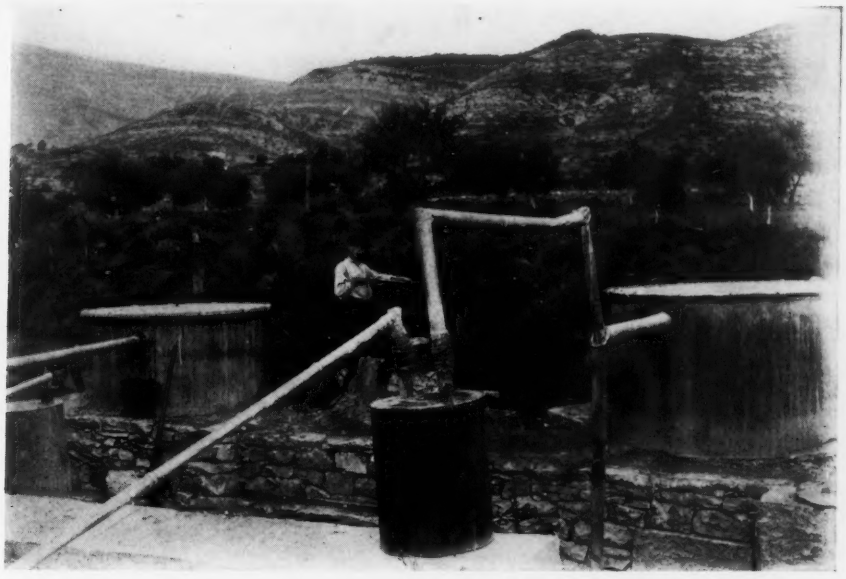
When the plants arrive from the surrounding hills they are weighed, paid for and stored near the still. As a rule, two stills are placed near one water source, usually a brook or a spring. To find such a supply of water is difficult in the arid regions of Spain's interior. Suitable places for distillation where all conditions are satisfactory, are rare.

The plants are put in the still and distilled usually for 3 or 4 hours. While one apparatus is working the other is discharged and recharged with new flowers so that the work goes on continually day and night. The distillation period lasts from one to two months. As a rule, four men work at one still and they live nearby in a little hut of twigs erected as protection against the rays of the sun and the chill of the night. The men must be able and skilled as the proper yield of oil is dependent on correct manipulation. The method of heating is most important because a fire sufficient for distillation must be kept up and as little fuel as possible used. No coal and wood is available and the plants after being discharged from the stills are dried in the sun and serve as fuel.

LET us suppose that a producer intends to distill 10,000 kilos of Oil Red Thyme. For this he would require about 20 stills which would be sent to the Thyme regions and set up by his men involving considerable investment of capital. If for some reason or other the entire 10,000 kilos as originally calculated could not be produced, these investment expenses would figure very heavily on the cost of the reduced amount of oil obtained. Inferior yield of oil or drought would reduce the amount of plant material available. This is precisely what happened during the harvest of 1931. The terrific drought prevailing throughout the producing regions of Thyme reduced the total production to 1/3 and 1/4 that in normal times.

There is another more serious factor, however, which influenced the price of Spanish essential oils during the 1931 campaign: namely, the very marked increase in the cost of labor resulting from the recent revolution. The drought of 1931 although it seriously affected this year's cost prices is only temporary, but the higher wages and the higher standard of living in Spain will remain unless something unforeseen and radical occurs such as a complete turn toward Communism in Spain. Anyone who has actually seen and studied all the phases of Spanish oil production will agree that the wages paid until 1931 were far below normal. They hardly enabled the laborers to cover their daily needs. Such conditions cannot prevail very long in a civilized country and intelligent producers of Spanish essential oils readily agreed upon an increase in wages. Yet the world-market for oils is such as not to permit too high production costs for Spanish oils and during 1931 producers fought a hard battle with the farmers and plant cutters in the villages in an endeavor to combat their exaggerated demands. The revolution has brought about a profound change in the social order, especially in the rural districts. The great problem of the new

The plants are carried in from the mountainsides on mule-back and weighed out before going to the still



Open fire distillation of spike lavender in the mountain regions of Spain, a crude but practical means of essential oil production

Republican government is the breaking up and division of land holdings among the poorer classes of farm hands. This program—a question of life and death for the new regime,—has "gone to the heads" of the rural populace.

Uneducated as they have been kept by the old government for centuries they now believe that the Millenium has arrived. Why go up in the mountains and slave fourteen hours a day in the burning sun for some rich distiller from the city for 50 cents a day, they argue. Is it not better to wait until every farm hand gets his own share of land to cultivate? Their understanding and outlook extends no farther than to the chain of mountains on the horizon. They think of the Spanish essential oil industry as an important necessity without which the world could hardly get along. Of course, they know little of the prices and ailments of the world-market. Their time has come, they argue, to dictate terms to the distiller in whom they always see their oppressor and natural enemy. In every hamlet, revolutionary committees have sprung up which control the affairs of the village, wages and well-being of the laborers. These committees are more moderate in the Central part of Spain, but they are radical in the South and often resemble the village Soviets of Russia.

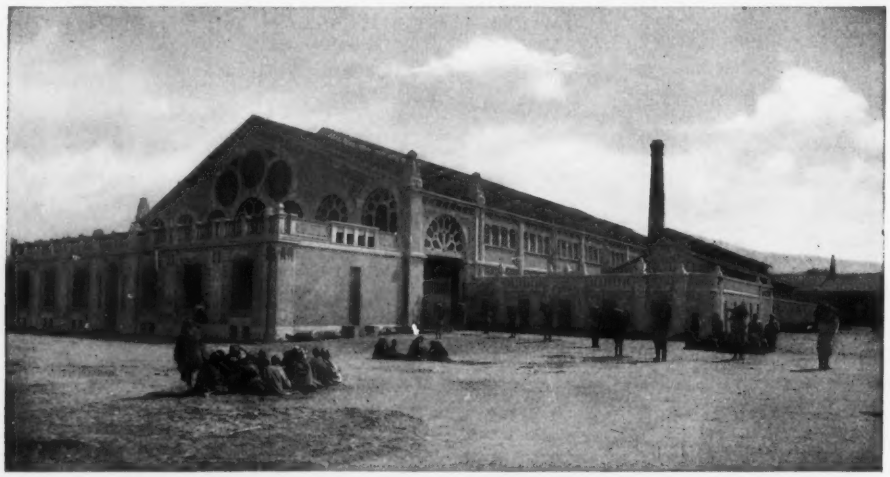
THE distiller nowadays has to pay much higher wages to his men. More important, however, are the considerably higher prices of plant material brought about by the increased wages of the plant cutters. While, for example, for origanum and pennyroyal plants during 1930, 50 to 60 centimos were paid per arroba (25 lbs.), prices of 60 to 80 centimos were agreed upon between village committees and distillers at the beginning of the 1931 campaign. This increase alone would have caused a very much higher cost for oil, but this was not enough. Not satisfied with these arrangements the radical committees declared boycott on the distillers demanding 60 to 100 centimos per arroba and sometimes 150, after the distillers had set up their stills in the regions under heavy investment. Such prices are absolutely prohibitive for distillers, particularly in view of the low world-market prices. The distillers were practically helpless and would not dare bring in plant cutters from other regions for fear of endangering their lives, there being no police protection in these remote regions. Only recently a news item in the New York papers read to the effect that in Lorca, the centre of rosemary production, the policemen were begging in the strets because they had not received salaries for months due to the terrific drought which practically emptied the city's coffers.

Some very radical committees confiscated, at least temporarily, some of the stills and the production of oils was brought to a standstill. In certain districts, therefore, distillation had to be called off in the midst of the campaign after heavy investments at the beginning of the harvest and after only a very limited output of oil per still was obtained. The year 1931 ended under heavy losses for the producers of Spanish essential oil.

A MORE detailed picture of the situation relative to various Spanish essential oils is embodied in the following brief outline:

Oil of Spike Lavender Spanish: The best quality is distilled in Cuenca, Guadalajara and Soria, i.e.,

(*Turn to Page* 113)



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Ste-Marguerite Estate, Boufarik, Algeria

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SOUSSE, Tunis
ANTALAHA, Madagascar
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Say you saw it in SOAP!

Notes on POWER LAUNDRY PRACTICE

Satisfactory Laundry Work Dependent Upon Water Treatment and Selection of Proper Soaps and Detergents

By C. E. LENNOX*
Swift & Co., Chicago.

THE power laundry industry is one of the largest consumers of industrial soap products and although the use of soap in this industry is closely allied to cleaning operations in general, the methods and equipment employed present problems that are not found elsewhere.

It is important to differentiate between a power laundry and other laundries. Although the distinction is not sharp, the line of demarcation has been set largely by the size of the plant and the volume of business handled. This in turn determines the kind of equipment used and the methods employed. Power laundries, as the name implies, use power-driven machines for practically all washing and finishing operations, while hand laundries, unable to finance the investment in power equipment, must be content to do much of the work manually. The power laundry, because of its volume of business, is in a position to invest in water softening equipment, adequate boiler capacity, and other necessary auxiliaries to the actual laundry equipment, all of which are essential for the proper handling of commercial laundry work. They are usually adequately financed, have good credit, and are run by business men with abilities commensurate with their investments. They represent a stable business, akin to a utility but without the monopolistic privileges granted utilities. Therefore, they are constantly finding new competitors in the form of poorly operated hand laundries, outgrowths of the laundresses, that are started on the proverbial shoe-string and run until the initial capital is exhausted. It is seldom that the owner of this type of hand laundry has the slightest conception of laundering methods or business principles. The equipment used is inadequate and the quality of work produced is usually inferior. These statements are not intended as a general indictment of all hand laundries, since they have their place in our business structure and in many cases produce good work and ultimately grow to the proportions and methods of a power laundry. These statements, however, do explain the fundamental reasons why the washing practices of the power laundries differ from other laundries.

The power laundry industry of today is quite highly developed. There are a number of individual plants in this country that represent investments of over a million dollars and which have an annual business in excess of the same figure. Estimates from the Federal Census indicate an annual business for the industry in excess of five hundred million dollars. The annual bill for detergent materials for this industry is probably in excess of ten million dollars, even in this period of demoralized soap prices. Although the machinery used in washing operations retains the same fundamental design of the last century, many refinements are added annually. For a numbers of years rapid growth has necessitated the use of larger and larger equipment so that now a plant may handle a load of 1,000 pounds of clothes in a single machine if they so desire, while loads of 200 to 300 pounds are now considered as standards. These increased loads have introduced problems in washing that were not even considered ten years ago.

Water Softening in Laundries

PERHAPS the greatest boon to the power laundry industry was the introduction of adequate water softening equipment. In the early days—the good old days—no attempt was made to soften water prior to its use. If a plant was located in Boston it had a very good water to work with since it was practically soft. A city using the water from the Great Lakes was a fair place to operate, having moderately hard water. The great plains region, with high hardnesses and limited supplies, was a nightmare. Practically no adequate method of pre-softening was available. During this period many of the plants made

* Before Fall Meeting American Oil Chemists' Society, Chicago, October, 1931.

their own soap from local tallow supplies. This soap contained liberal quantities of excess alkali to complete the saponification and was bolstered up with additional quantities of caustic soda and soda ash, in an attempt to soften the water in the washing machine. Unfortunately, the soap was a better water softener than the alkali so that the attempts to prevent the formation of lime soaps were all in vain. The result was very grey looking work that even enormous quantities of hypochlorite bleaches and long boiling could not change. This early experience did not aid in public acceptance of the power laundry.

Later, in hard water regions, lime-soda softeners were introduced. Many were improperly designed, many were home-made, practically all were operated without any appreciation of control. The hardness of the resulting water was sometimes low, sometimes medium, and sometimes higher than the original hardness of the raw water due to excesses of lime used. Experience with attempting to soften water in the washer indicated that great excesses of alkaline materials did some good and this same practice was sometimes applied to pre-treatment with distressing results. With a properly operated lime softener, the laundry could turn out superior work and save enormously on the soap costs. Large excesses of caustic alkalinity in over-treated water presented new problems in laundering. No longer were great quantities of caustic and carbonate alkalies necessary and no longer were there available large bicarbonate hardnesses in the water to aid in removing the excess already present in home-made soap or introduced by the treated water. This seems to be one of the logical reasons for the great spread in the use of modified sodas. The bicarbonate contents of these sodas corrected the new evil, excess causticity, which with improper rinsing was causing some discoloration. The modified soda was also useful to the plant not equipped with a lime softener since it could be shoveled on in great quantities without obtaining high alkalinities. This excess did but little good but did no harm, hence the safety plea in the use of modified soda. It might be interesting to know that the "sodas" were actually shoveled, dry, into the washer in those days of small washers, small loads, hard water, and inadequate knowledge.

Then came the new era of the modern laundry industry. Zeolite water softeners supplied what nothing else could; zero soft water from nearly any water supply all the time—if properly operated. Gone were the days of shoveling on alkalies. With an absence of hardness and an absence of excess causticity it was thought that soap alone would now do the washing. This idea was short-lived, however, as soap alone was not sufficient. Mild alkalies were employed. Since soap was not being consumed in softening the water the savings in soap costs paid for the new water softener in a short time. With soft water came a possibility for real quality work at all times with reduced supply costs. The bugbear of grey work was gone. The attempts to bleach to whiteness fabrics that were hopelessly greyed with lime soaps, were in the past. Clothes lasted longer and looked better; better even than the most particular home manager ever hoped to do them herself. Public confidence in the industry was being restored by better work.

This equalization of conditions in all parts of the country due to soft water has done much to standardize on methods employed at the present time. Generally speaking, the power laundry industry is doing a good job. Reasonably careful operation will produce a good quality of work with but little loss in the strength of the garment.

Needs of the Modern Laundry

THE foregoing sketchy history, if I may call it such, brings us to a point of considering present day practices and present day needs. Many of the fundamental principles and ideas used in the power laundry are the result of practical application rather than true scientific study. The combined efforts of the industry itself and the manufacturers of detergent supplies have brought about more or less universal standard washing procedures called washing formulas.

True scientific studies in laundering date back about 15 years. Prior to this, the reports of technical discussions at annual conventions present amusing reading matter. In all fairness to those discussions, however, we must consider the development of chemistry as a science during the same period. Since the application of scientific information to the laundry industry, a better understanding of washing problems has been created. Many pseudo-scientific selling attempts have soured some laundry operators on the possibility of laboratory aid, but honest, unprejudiced sources of information have largely offset this. University graduates are finding places in the larger laundries, and many sons of present owners have included chemistry in their college curriculum in their preparation to take their place in the management. In addition, there are two trade schools offering practical courses that include a liberal discussion of chemistry. In spite of any opinion to the contrary, the laundry industry is eager for information and training. Highly technical articles dealing in strange mathematical formula and expressing results in unfamiliar

terms can hardly be accepted by the industry and properly digested. Neither can the mysticism of the past be continued indefinitely. The laundry industry wants definite facts, backed by adequate scientific information.

These developments can only come from two sources: the industry itself and those industries furnishing washing supplies. The industry as represented by the Laundryowners' National Association and the American Institute of Laundering maintains a laboratory at Joliet, Illinois. and another at Mellon Institute. By necessity, the work in these laboratories is very broad and generalized. Individual laundries with trained men at hand are also constantly making practical and, in many cases, technical studies. These, however, are hampered by widely divergent opinions that filter in from sources that should be in great accord for the best good.

A review of the available information supplied directly or indirectly by the manufacturers and distributors of laundry supplies presents a picture of many studies on detergency but few definite results. The indefinite results can be well understood when the complexities of detergency are appreciated. Efforts in studying the problem have not been centered entirely on one definite principle but have been generalized to include the subject of detergency in its entire scope or on the other hand to limit the study to certain intangible and artificial laboratory standards. Individual efforts of investigators are too often directed toward the proof of the result desired rather than the report of the results as found. Power laundry requirements, home-washing needs, bottle washing, metal cleaning, shaving soaps, and endless other uses of soaps are considered individually and collectively and then reported according to the predetermined standards. These results trickling out through the technical and trade journals present an endless and wide difference of opinion, leaving the reader in a state of confusion.

Consideration of the power laundry washing problem should be confined only to the needs of this problem, since it is fundamentally different from many other uses of soap. The literature is filled with results applied to power laundry practice that were not even based upon the methods now employed. To define the conditions for power laundry operation there follow several important points that should be considered as a basis for experimental work on this subject:

1. *Water Conditions*

(A) Hardness. For all practical purposes all water supplies for the modern power laundry can be considered as soft. The occasional plant without softened water can be regarded as an exception to the rule and does not deserve consideration since the poor quality of work it is probably producing can be so much improved by a water softener that until that plant utilizes a softener, there is little constructive work that can be done for it. To date, all attempts to soften water in the washer have failed miserably and have been economically unsound. Future studies in this direction are apart from present consideration.

(b) Alkalinity. The fact that all waters used can be considered soft does not mean that they are all identical. If lime-treated, they will probably contain small amounts of carbonate alkalinity and even very small quantities of caustic alkalinity. If Zeolite treated, they will contain varying quantities of bicarbonate alkalinity. As will be noted later, the low concentration of laundry supplies can be greatly effected by the alkalinity of the water used. To grossly condemn soda ash for any reason whatsoever and advocate, for example. the general use of modified soda is amusing when one considers that the use of soda ash in a water high in bicarbonates produces the equivalents of modified soda in the solution. The reverse condition is equally evident. When one speaks of water he must qualify his remarks with the specifications. Detergency studies must include considerations for these waters.

2. *Concentration of Supplies*

(A) Soap. Generally speaking, the concentration of soap in actual use in a washer is in the vicinity of 0.1%. In washing cleaner work or in the later sudsing operations this concentration is considerably lower. Occasionally in very dirty work it is higher. The use of soap at much higher concentrations is virtually impossible with the present type of laundry equipment, as the suds formed will inundate the washroom. Therefore, conclusions drawn on laboratory work at higher concentrations are not acceptable unless they can be scientifically correlated to prove that results at lower concentrations follow the same rule or that it is physically possible to use the laboratory concentration in the plant.

(b) Alkalies. Under this term we group the various bases and salts showing alkaline reaction. These are also called fillers in soap, builders, and detergents. Present practice causes the bulk of these materials to be used in an admixture with the soap at various proportions depending upon the type of alkali, the type of soiled work, the water, and the whim of the operator. The concentration, in actual use seldom exceeds that of the soap—0.1%—and in the case of very strong caustic alkalies, about 0.03%. Translated in terms of normalities, the maximum concentra-

(*Turn to Page* 111)

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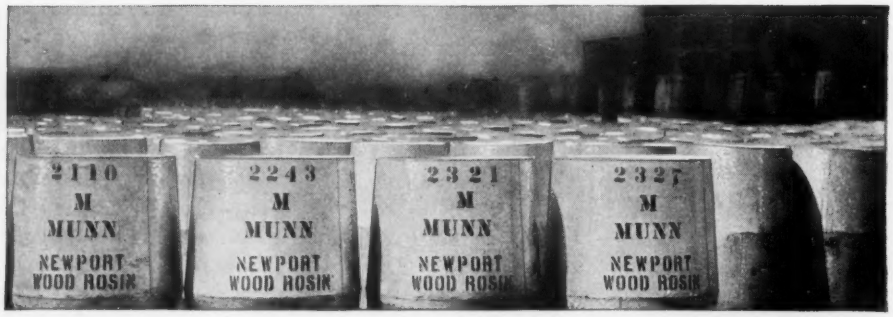

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Say you saw it in SOAP!

The Growing Soap Industry of Japan

THERE is no Sherman Law in Japan. The main object of the National Soap Manufacturers Association of that country is to fix and maintain prices, and to minimize vicious competition. After a six months' study of soap manufacturing and marketing conditions in Europe and the United States, Toshiro Takei, Chairman of the Board of the Association, is en route from the West Coast for Japan. In an interview with a representative of *Soap*, he has revealed some interesting facts about the new modern soap industry of Japan, and the activities of its manufacturers' association.—The Editors.

An Interview with

TOSHIRO TAKEI

Managing Director, The Lion Soap Co., Ltd., Tokyo
Chairman of the Board, National Soap Mfrs. Assn. of Japan

PRIOR to the World War, there was no soap industry in Japan worthy of the name. Practically all the soap consumed in that country was imported. Today, the exact reverse is true. As the result of a very rapid expansion in soap manufacture during the past sixteen years, Japanese manufacturers supply the soap requirements of their home market almost in full. There were no modern soap plants there in 1915. Since that time, the number of manufactories has grown until they now have some 400 plants of varying sizes, including about twenty large plants, employing approximately 5,000 people. Most of these factories are reported making full-boiled soaps, chiefly of the yellow rosin laundry bar type.

Soap was an unknown article in Japan prior to the arrival of Perry in 1856. Even after that, imported soaps were first used by the Japanese only about 1890. Some soaps were made in the home after that time, but only in a very limited way, as waste kitchen fats have always been very scarce. Only in recent years has the use of soap become widespread throughout Japan. Its use has become general among all classes only since the World War, especially as a medium of bodily cleanliness. The use of rice bran, rubbed on the skin and then dusted off, used to be the common method of bathing. In some parts of the country, this is still a method of acquiring bodily cleanliness. Although the wide use of soap is a comparatively recent development, the spread of this Western means of cleanliness has been rapid and has kept pace with the industrial and economic advancement of Japan. Approximately six pounds per capita is the present rate of consumption. This compares very favorably with the two extremes in soap consumption—two ounces per capita for China and twenty-six pounds for the United States.

A rough estimate places the soap production

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Kansas City **St. Louis**

Say you saw it in SOAP!

In old Japan, rice bran was the medium of bodily cleanliness, rubbed on dry and dusted off. It is only since the World War that soap has come into common use, and Japan has had a modern soap industry

of Japan at $25,000,000, of which some $15,000,000 is made up chiefly of bar soaps, $7,500,000 of washing compounds and powders, and $2,500,000 of technical soaps and specialties. The chief production of bar soap is in the yellow laundry type which is used for both clothes washing and personal cleanliness. Very little of the white or colored toilet soap bars are made or marketed in Japan. There is some demand for flakes and chips in that market, but they are imported from the United States as a general rule. The textile mills of Japan augment their domestic supply of textile soaps by the importation of some quantities of Marseilles soap from France. Imports, however, are cut down considerably by the tariff on soaps which stands about 100 per cent for toilet types and from 20 to 30 per cent for laundry soaps. With a total population of 80,000,000 for Japan and Korea, the per capita value of soap production is about thirty cents. As this is mostly the cheaper grades, it is calculated at a value of roughly five cents per pound.

OF the raw materials used by Japanese soap manufacturers, both imported and domestic sources supply them. From Australia chiefly, about 15,000 tons of tallow are imported yearly. The production of coconut oil in the South Sea Islands among the Japanese colonies, acquired from Germany in the War, amounts to about 6,000 tons per year and about all of this goes to Japan for use in the soap kettle. From China, the lowest cost producer, something in excess of 10,000 tons of vegetable oils are imported annually, mostly soya bean and cotton oils. The United States supplies the rosin for Japanese soap manufacture to the extent of 5,000 tons per annum. The consumption of caustic soda, which is not known exactly in tons, is of stocks supplied about half by Japanese manufacture, and half from England and the United States.

The largest tonnage raw material of the Japanese soap makers is the fish oil of their own fishing industry. Hydrogenation of fish oils has made rapid progress in Japan during the past decade and the use of the hardened fat continues to expand. About 30,000 tons are used each year in soap making and from 20,000 to 30,000 tons per year are exported to Europe for margarin manufacture. A few of the leading soap makers have their own fish oil hardening equipment. As the Japanese are very small consumers of fats in their own foodstuffs, comparatively little of this type of fat is used there for edible purposes.

The equipment of the industry in Japan is mostly of domestic manufacture, that is, the kettles, piping, pumps, etc. The specialty soap machinery such as mills, plodders, slabbers, dryers, presses, etc., are of American and German origin. Some American packaging equipment is used. Of course, the production of milled soaps is comparatively small.

A STRIKING feature of the Japanese soap industry is the manner in which the manufacturers and distributors have organized for the betterment of the industry and to further the uses of soaps in their market. There are two soap industry associations. One is composed exclusively of manufacturers and about eighty per cent of the soap producers are members. The other is a combination soap and toilet goods wholesale dealers' association having to do mostly with the problems of marketing and distribution.

The manufacturers' association is known as the National Soap Manufacturers' Association of Japan and has its central office in Tokyo. Meetings are held yearly alternating between Tokyo and Osaka. There are eight local manufacturers' associations which are in reality chapters of the national association. They meet more frequently as the occasion requires. The chapters or branches are located at Osaka, Tokyo, Kobe, Nagoya, Kiushin, Hokkaido, Kyoto, and Yokohama, and each has local officers.

The objects of the national association are primarily three in number, although other matters which affect the industry are also acted upon. Standardization of the shape, form, weight, and size of the bar of soap is included in the work of the association. The association is now engaged in attempting to change all weights used to those of the metric system in the interests of simplification. The third and most important object of the Association is the stabilization of prices and the minimizing of competition. There is no Sherman Law in Japan and minimum prices are fixed as well as sales policies designed to prevent excessive competition which characterized the industry prior to the formation of the Association four years ago.

Heretofore, the Association has done little in the way of scientific and technical cooperation. However, a technical section has just been formed which will meet five times per year with a view toward the improvement of manufacturing methods and the standardization of technique. The first matter which the new section is considering is the formulation of standard methods of analysis of raw materials and finished soaps.

It is in the interests of the Japanese soap association and the improvement of the methods of manufacture of its members that Mr. Takei, Chairman of the Board, is now on the last stage of a six months' journey through the soap producing countries of the world which included England, France, Germany, Spain, and the United States. Other leading soap manufacturers of Japan who are actively identified with the work of the Association include the president, T. Nagase of the Nagase Kawo Soap Co. of Tokyo; vice-presidents, T. Harumoto of Harumoto & Co. of Osaka, and I. Soma of Soma & Co. of Tokyo. The association engages a regular paid secretary, E. Suginohara, at its main Tokyo office.

THE association of distributors is known as the Tokyo Soap and Toilet Articles Sales Association. Although its membership is composed mostly of wholesale distributors, there are some manufacturers and larger retailers included. Its chief function is to push the sale of toilet goods and soaps. It does this by the distribution of all sorts of sales propaganda to the dealers throughout Japan. It issues a regular magazine for the retail store keeper in which soaps and toilet goods are advertised extensively by the leading manufacturers. Its activities are broad in furthering sales and it has done much to increase distribution and to increase the consumption of toiletries among the Japanese.

The general outlook for the future of soap manufacture in Japan is good. The chief trouble at present seems to be some cutting of prices in spite of the efforts of the manufacturers' association to prevent this. Ways and means of

(*Turn to Page* 75)

Japan rapidly takes on Western customs. The changes taking place bring with them a rapid and steady increase in the consumption of soap which has now reached six pounds per capita. A view of modern Tokyo

"BEAMAX"
DRIES TO A LUSTRE
LIQUID
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does not require
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THE DAVIES-YOUNG SOAP CO.
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offers these advantages:

1. It cuts floor maintenance costs by saving labor. No buffing is necessary on application, and no polishing is required.
2. "BEAMAX" dries to a hard, lustrous finish in twenty minutes or less.
3. The finish is easily maintained by buffing; each cleaning increases the lustre. Floors can be washed if necessary, with clear water without affecting the finish.
4. "BEAMAX" is easily applied with a cotton mop or lamb's wool applicator. It smooths itself.
5. Recommended for all types of floors. One wax takes care of all floor requirements: linoleum, wood, tile, terrazzo, rubber, asphalt tile, mastic, etc.
6. Worn spots can be patched without going over an entire floor. "BEAMAX" will not show lap marks.
7. There is no odor during application, or after.
8. "BEAMAX" is long wearing; frequent applications are not necessary.
9. "BEAMAX" insures maximum protection to floors; the hard, smooth finish resists wear.
10. "BEAMAX" is a perfect emulsion and will not settle out even when stored for long periods.
11. "BEAMAX" is sold in drums, half-drums and quarter-drums, as well as in 10-gal., 5-gal., and 1-gal. cans.

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Please send me, without charge, a sample can of "BEAMAX" Dries to a Lustre LIQUID WAX.

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Determination of WATER IN SOAP

Notes on Application of the Xylol Method for True Moisture Contents of Various Types of Soaps*

By A. K. CHURCH and J. H. WILSON[1]

WE have found it impossible to correctly determine the moisture in soap containing considerable amounts of sodium silicate by the standard method of drying in an oven. The Xylol Method, however, slightly modified, has been found acceptable. In applying the Xylol Method to soap, we found it necessary to prevent the too violent frothing which was likely to occur. This we accomplished by the addition of sufficient fused sodium acetate ($NaC_2H_3O_2$) to the distillation flask.

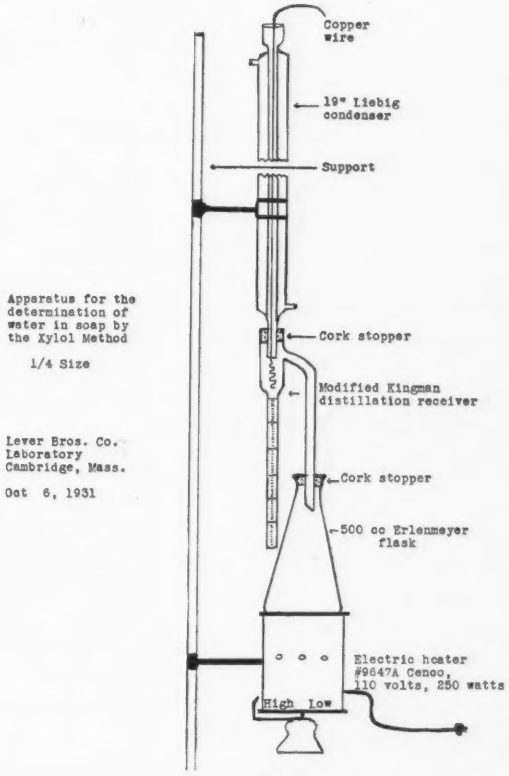
Method

WEIGH out 20 grams of soap on the analytical balance and transfer to a 500 cc Erlenmeyer flask. Add about 10 grams of anhydrous sodium acetate and 100 cc of Xylol which has been saturated with water and distilled. Attach the Erlenmeyer flask to a modified 6 cc Kingman distillation receiver, which is connected to a reflux condenser (19″ Liebig condenser). Reflux for at least 2 hours. The water in the receiver may be made to separate from the Xylol by using a spiral copper wire. The wire is moved up and down in the condenser occasionally, thus causing the water to settle to the bottom of the receiver. After 2 hours the electric heater is turned off and the reading of the amount of water in the graduated tube of the receiver taken. The reading, multiplied by 5, gives the per cent of water.

So that the refluxing will be under better control, the flask and the tube leading to the receiver are wrapped with asbestos cloth. The electric heater used is No. 9647A Cenco, 110 volts, 250 watts. The special Kingman distillation receiver can be readily made by any chemical glassware supplier. A sketch of the set up of the apparatus is attached.

If the soap contains sodium bicarbonate, a correction must be made:

$$2NaHCO_3 + \text{heat} \longrightarrow Na_2CO_3 + H_2O + CO_2$$



Apparatus for Xylol Moisture Method

Therefore the amount of water formed by decomposition of the sodium bicarbonate must be deducted from the total water to obtain the water present as such originally in the soap. Some of the sources of water which may be distilled over into the collecting tube are given below:

1—Free water.
2—Water of crystallization; for example, the water in washing soda ($Na_2CO_3 . 10\ H_2O$).
3—Water of decomposition; for example, from sodium bicarbonate.

$$2\ NaHCO_3 + \text{heat} \longrightarrow Na_2CO_3 + H_2O + CO_2$$

4—Water held by sodium silicate including the water that cannot be driven off in the drying oven at 105°C.

* Presented before American Oil Chemists' Society, Chicago, October, 1931.
[1] Lever Bros. Co. Laboratory.

5—Water held by any silicic acid ($SiO_2.xH_2O$) which may be formed by the decomposition of the silicate and which might not be driven off by drying in an oven at 105°C.

Different ingredients have been suggested as additions to the distillation flask to prevent frothing; for example, anhydrous sodium acid sulphate, also red oil. These two cannot be used, unless a correction is applied, if the soap be a built soap, as is readily seen by the following reactions.

The reaction when sodium carbonate is present in the soap:

$$Na_2CO_3+2C_{17}H_{33}COOH \longrightarrow 2C_{17}H_{33}COONa+H_2O+CO_2$$

$$Na_2CO_3+2KHSO_4 \longrightarrow Na_2SO_4+K_2SO_4+H_2O+CO_2$$

The reaction when sodium silicate is present in the soap:

$$Na_2O.xSiO_2+2C_{17}H_{33}COOH \longrightarrow 2C_{17}H_{33}COONa+H_2O+xSiO_2$$

$$Na_2O.xSiO_2+2KHSO_4 \longrightarrow Na_2SO_4+K_2SO_4+H_2O+xSiO_2$$

By the use of anhydrous sodium acetate the formation of water is avoided

We have found that very occasionally on aged products which contain considerable amounts of silicate of soda, the Xylol water does not quite agree with the moisture found by difference, that is, by adding up the total ingredients other than water and subtracting this total from 100. The explanation of this may be the difficulty of dehydration of certain silicic acids which are formed when the product is sufficiently aged. From what is said in Mellor's Treatise on Inorganic and Theoretical Chemistry, Vol. VI, page 292, there is reason to suppose, however, that the decomposition temperature of most hydrated silicas would be somewhat lower than the boiling temperature of the Xylol. Mellor mentions that aged hydrated silica is more difficult to dehydrate than freshly prepared.

—o—

An improved carboy tilter, designed to prevent acid accidents has been announced by Schwenk Safety Device Corp., New York. The new equipment is an improvement in that the carboy is elevated into the tilter by levers, the operator not directly lifting the carboy. The cradle wherein the carboy box rests provides support on three sides and the bottom so that there is no danger of the bottle dropping through the box.

—o—

Toilet and fancy soaps to the amount of 415,924 pounds, worth $87,920, were exported from United States during August, 1931, as against 326,656 pounds, priced at $85,885, during the corresponding month of 1930.

Appeal Oakite-Novite Case

The Buckeye Soda Co., Painesville, O., has appealed to the United States Court of Customs and Patent Appeals from a decision of First Assistant Commissioner of Patents which ordered cancellation of a trade mark registration of "Novite" by the Buckeye firm. Commissioner Kinnan's decision reversed a decision of examiner of trade mark interferences J. Carnes on a petition filed by Oakite Products, Inc., New York, seeking cancellation of the "Novite" mark because it was confusingly similar to the "Oakite" trade mark of the New York firm. Carnes said the Oakite petition should be dismissed.

According to Commissioner Kinnan the Buckeye Soda Co. obtained registration of "Novite" March 15, 1927, for use on washing soda. The Oakite firm, which used its trade mark on a cleaning and polishing compound, contended that it had used the term "Oakite" since about 1909 and had it registered as a trade mark November 29, 1910. Commissioner Kinnan said the only question to be considered was the similarity of the two marks. The Buckeye Soda Co. contended the two words were similar only in the last syllable, "ite." Kinnan could not agree with this contention.

"A conclusion in the case at bar is not easily reached," he said. "Looked at as a whole, the two marks have many features in common beside the terminal syllable. Both are short words and have the same number of letters; both have the long "o" sound in the first syllable and terminate in the identical letters "ite."

"It would seem the respondent (Buckeye Soda Co.), so long after the petitioner had built up its business under its mark, should not have adopted a mark so nearly approaching that of petitioner. It is believed there is at least a reasonable probability of confusion, especially when the character of the goods and the class of purchasers are considered, and, following the settled rule, the doubt is resolved against the newcomer." The appeal will be heard by the Court of Customs and Patent Appeals some time during the coming fall or winter. Its decision will be final, as it is the court of last resort in cases of this character.

—o—

Imports of castile soap into United States during August, 1931, totaled 38,103 pounds, worth $2,640, as compared with 241,666 pounds, valued at $23,062, in the same month of 1930. Toilet soap imports in August, 1931, amounted to 111,499 pounds, worth $31,651, as against 148,710 pounds, valued at $44,480, during August, 1930.

SECURITY PRICES

PRICES of stocks of soap, chemical, insecticide, and allied companies as quoted on the New York Stock Exchange, Curb Exchange, other exchanges and over-the-counter are given in the following table. This table of prices is compiled monthly for *Soap* by a representative of one of the oldest and best-known brokerage houses in New York.

	High 1931	Low 1931	Oct. 1 1931	Nov. 2 1931
Allied Chem.....	182¾	68	79¾	85
Am. Agric. of Del.	29¾	5⅛	6	8½
Amer. Cyan. "B".	12¾	3⅝	4⅛	5
Armour of Ill. "A"	4½	1	1	1½
Bon Ami "A"....	66¼	49	56⅞	50
Brillo	8½	5⅛	6⅛	8
Colgate, P. P....	50½	28	30	33½
Corn Prod.	86⅝	36¼	41½	48⅜
Coty	18	3¾	3¾	4¾
Dow Chem.	51½	30	35	35
Drug, Inc.	78¾	42¾	50	56
Du Pont	107	53¾	60⅜	58¾
Glidden	16⅛	4½	5¼	8
Gold Dust	42⅛	18	19	21⅜
Gulf Oil	76	38	39½	52
Heyden	13	8	8	7¾
Int. Agric.....	5¼	1⅛	1½	1½
Lehn & Fink	34¾	18½	21	23
Mathieson	31½	14¾	15	19
McKess. & Rob...	17	7	8	7¼
Monsanto	28¾	16¼	17½	25¼
Newport "A" ...	55	41	55⅛	55⅛
Proc. & Gamb..	71¼	39⅝	40⅛	47
Shell Union	10¼	3¼	3½	4¾
Sher. Will.	68½	46	53	46
Sinclair	15⅞	5½	6	7½
S. O. of Cal.	51¾	28⅛	29⅞	34⅝
S. O. of Ind.	38½	15⅞	18	22¼
S. O. of N. J.	52½	28¼	29⅛	34⅞
S. O. of Ohio	62½	35	38¾	40
Swift & Co.	30⅜	20¾	22¾	22¾
Union Carb.	72	27½	33	35¾
Westvaco	40	8¼	8¼	12¾
Wilson & Co.	4	⅝	1⅛	1

The direction of the Forhan Co. advertising account for its toothpaste and antiseptic will be taken over by McCann-Erickson, Inc., New York, January 1st.

Exports of soda ash from United States during August, 1931, amounted to 3,055,634 pounds, worth $54,013.

Los Angeles Soap Plans New Units

An enlargement of the capacity of the Los Angeles Soap Co., which it is estimated will cost $500,000, is contemplated, according to an announcement by company officials. Construction of a new $200,000 unit will start at once, and another $300,000 building will be added in the spring. The new additions will greatly increase the capacity of the plant and will result in an increase from 600 to 1,000 in the number of men employed. The first building will be of one story and basement adjoining the present plant, and will be used in handling oils. Equipped with a spur track it will be possible to unload eight cars of oils at once. The building to be added next spring is to be a five-story structure for general manufacturing purposes.

Refined Glycerine Imports Smaller

Imports of refined glycerine into United States during the month of August totaled only 38,720 pounds, valued at $3,024, as compared with 113,651 pounds valued at $8,415, during the previous month. Imports of crude glycerine were also smaller running to only 748,893 pounds in August, worth $35,987, as compared with 822,007 pounds priced at $41,561 in July. Netherlands was the only country to ship in refined glycerine during August. The following figures give in pounds the imports of glycerine into the United States over a period of years:

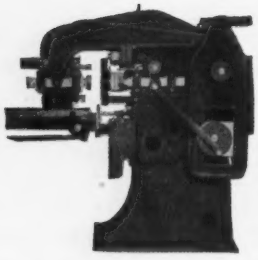
	Refined	Crude
1923	585,792	14,548,660
1924	1,500,644	14,427,054
1925	2,043,606	19,264,654
1926	10,839,093	27,658,552
1927	8,288,574	14,943,670
1928	4,217,943	4,951,651
1929	5,381,684	14,951,901
1930	3,136,809	12,144,193
Jan.-Aug., 1931....	817,521	6,980,293

Bon Ami Co., for the three months ended Sept. 30th, reports net profit of $324,519, or $1.50 a share on the common A and 87c on the B. This compares with corresponding figures for last year's third quarter of $344,040, or $1.59 and 92c. Net for the first nine months of this year equals $975,462, after taxes and depreciation, as against $1,044,507 last year.

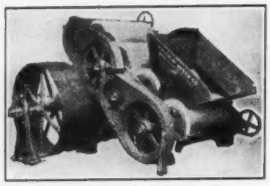
Monsanto Chemical Works, St. Louis, presented an excellent earning report in the third quarter of this year, netting $361,720, or 84c a share on each of 429,000 shares. This compares with $173,515 in the same quarter of last year, equal to 41c a share on 416,449 shares.

SOAP MACHINERY

Special Offerings



4 JONES AUTOMATIC combination laundry and toilet soap presses. All complete and in perfect condition.



H-A SOAP MILL

This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.

DOPP CRUTCHERS

Sizes from 300 pounds to 3,000 pounds. All in best condition and guaranteed.

Quality Used Machinery

You can see NEWMAN equipment in actual operation at our Chicago warehouse.

DRYERS — Two Proctor & Schwartz Large Roll Soap Chip Dryers Complete.
Three Proctor & Schwartz Soap Chip Dryers with five Chilling Rolls. Devine Double Drum Vacuum Dryer.
Proctor & Schwartz Bar Soap Dryers.
Condon & Huber Soap Chip Dryers.

SOAP CRUTCHERS — Houchin-Aiken, Dopp & Doll Steam Jacketed Crutchers, 1000 lb., 1200 lb., 1350 lb., 1500 lb., 1800 lb., 3000 lb., 6000 lb. and 10,000 lb.

SOAP PRESSES—Jones, Machinery Designing, & Ralston Automatic Presses for toilet and laundry soap. Dopp, Crosby & Empire Foot Presses.
Scouring Soap Presses.

GRINDERS & MIXERS — Day Jacketed Marshmallow Mixers, Pony Mixers, Talcum Powder Mixers, Rouge Mixers, Ointment Mill, etc. Schultz O'Neill Mills.

SOAP CUTTING TABLES—Houchin-Aiken Steel Automatic Table with self-spreader and extra headers.
Wooden Tables with and without self-spreader attachments.

SOAP SLABBERS—Houchin-Aiken, Curtis-Davis, Dopp & Newman's Hand and Power Slabbers.

TOILET SOAP MILLS—2, 3, 4, 5 and 6-roll Granite Soap Mills.
Houchin-Aiken 4 and 5-roll Steel Mills.
Buhler 3, 4, 5-roll Steel Mills.

PLODDERS — Houchin-Aiken, Rutschman & Allbright-Nell 6", 8" and 10" Plodders.

SOAP POWDER MACHINERY —Blanchard No. 10-A and No. 14 Soap Powder Mills.
Broughton Soap Powder Mixers.
Wms. Patent Crusher & Pulverizer.
Sedberry Crusher, Grinder & Pulverizer.
A-N 5x7 Crystallizing Rolls.

FILTER PRESSES—Sperry, Perrin & Shriver Cast Iron Filter Presses 12", 18", 24", 30" and 36". International and Monopod Filters.

VARIOUS OTHER ITEMS—Wm. Garrigue Glycerine Evaporators.
Steel Soap Frames, 600 lb., 1000 lb., 1200 lb., 1500 lb., and 1800 lb. cap.
Automatic Soap Wrapping Machines.
Steel, Copper and Aluminum Kettles.
Soap Remelters, Tube Fillers.
Filling and Weighing Machines.
Pneumatic Scale Corp. Can Filling Machine for cleansers, etc.
Brass Soap Dies for foot and aut. Presses.
Soap Chippers, Scales, Motors, Amalgamators.
Soap Racks, Bottle Filling and Capping Machines. Talcum Can Crimpers, etc.

Send us a list of your surplus equipment—We buy single items or complete plants.

Also makers of a new line of soap machinery. Get our complete list and prices on this new equipment! All used machinery is sold as absolutely guaranteed in first class working condition. Everything listed here is ready for immediate shipment.

NEWMAN TALLOW & SOAP MACHINERY CO.

1051 WEST 35TH STREET
CHICAGO, ILL.

Our Forty Years of Soap Experience can help solve your Soap Problems

Say you saw it in SOAP!

Form Chicago Soap Association

Representatives of several leading Chicago liquid soap manufacturers met at the Midland Club, Chicago, October 20 and formed a local association to be known as the Chicago Liquid Soap Manufacturers Association. E. Earl McDow, Antiseptol Liquid Soap Co., was elected president and Theo. B. Robertson, Robertson Products Co. was named secretary-treasurer. It was decided to limit active membership to companies actually making soap from the ground up, but to open associate membership to converters by invitation. Among those present were J. A. Millner, Lanair Co., C. R. Lichtenberg, Chicago Sanitary Products Co., W. M. Kelso, Green Oil Soap Co., Harold L. Aronson, U. S. Sanitary Specialties Corp., Frank Schmidt, George A. Schmidt & Co., Ben Alexander, Eagle Soap Corp., R. O. Jackson, West Disinfecting Co., E. C. Kratsch, of *Janitation* and Grant A. Dorland, of *Soap*.

It was decided that the association should adopt a definite program of problems to be solved and a committee was appointed to resolve the various matters discussed at the meting into a definite platform for association action. Among the matters of most interest were the subjects of interchange of credit information, standard cost systems for members, education of consumers by means of association booklets, general publicity and co-operative advertising and standardization of liquid soap for the Chicago territory. The committee was directed to draw up programs for ensuing meetings at which these subjects will be discussed individually and at length. The succeeding meeting was scheduled for Nov. 3. It was also to be held at the Midland Club.

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Lever Brothers Company, Cambridge, has filed a complaint with the Interstate Commerce Commission against a rate of 32 cents per 100 pounds, which is fifth class, on carload shipments of soap from Cambridge, to Scranton, Pa. The company says this rate places it at a disadvantage with competitors at Port Ivory, N. Y., and New York Harbor, who ship the same commodity to Scranton at a rate of 21½ cents per 100 pounds.

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W. L. Buck, Oklahoma City, was elected president of the International Beauty and Barbers' Supply Dealer's Association at the St. Louis convention which closed October 16th at the Hotel Jefferson.

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United States exported 11,389,464 pounds of caustic soda in August, 1931, this material having a total value of $296,240.

Colombian Soap Trade Affected by Duties

Temporary emergency decrees adopted by the legislature of Columbia, S. A., have seriously handicapped the domestic soap producers in competing with imported soap products, according to reports from that country. The decrees which went into effect October 1st are designed to keep in the country money which might otherwise be spent abroad for purchases of toilet articles, perfumes and raw materials for their production. The new duties practically prohibit the importation of toilet articles and perfumes and greatly increase the cost of raw materials for the manufacture of soaps, toilet articles and perfumes. A point which was apparently overlooked in framing the decrees is the great advantage to foreign soap manufacturers shipping to the Colombian market. They can sell at no increase in cost while their Colombian competitors have much higher manufacturing costs as a result of the higher import duties. The duty on imported soaps was not raised along with the other rates because, for hygienic purposes, it was believed wise to keep the cost of soaps low. This same reasoning was not applied to soap raw materials, with the result that while foreign made soaps continue to come in at the old prices, domestic producers are faced with higher costs.

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Reject Tallow Futures Market Proposal

At a meeting held in the New York Produce Exchange, October 19th, it was decided that in view of conditions in the tallow market it would be unwise for the present to consider the inauguration of a market for trade in tallow futures. The meeting, called at the instance of President Herbert L. Bodman, was attended by some seventy-five individuals who exhibited considerable interest in the proposal. It was stated in favor of the proposal that a hedging market for tallow would meet a long felt need and that it would probably tend to augment wholesale trade in the shipping and distribution of tallow. The sense of the meeting, however, seemed to be that no action was called for at that time.

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Stocks of crude cottonseed oil on hand in United States as of September 30th, 1931, totaled 69,744,520 pounds, as compared with 79,175,353 pounds at the same point last year. Stocks of refined oil September 30, 1931, amounted to 173,944,857 pounds, as against 174,519,624 pounds a year previous.

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A small soap plant is being put into operation in Windsor, Ont., by Miss Ruth Shurlman, 320 Aylmer avenue.

CHICAGO NEWS

THE Chicago Perfumery, Soap and Extract Association has now completed arrangements for the Annual Fall Banquet, to be held Wednesday, December 2nd, in the Knickerbocker Hotel Ball Room. In one respect—and it is an important departure—the Association will exceed all its previous records for hospitality. All banquets heretofore have been lavish in their offerings of entertainment, food, souvenirs, good companionship and other attractions, but this year the Association, in addition to all this, has announced the decision of permitting every member to escort one feminine guest to the affair without charge. The treasury fund will bear the added expense. Tickets will be priced, as in the past, at $5.00 each. A. G. Schneider, of Victor Chemical Works, special chairman for the banquet, announces that five special features of entertainment have been booked, together with one of the best orchestras in Chicago. The Knickerbocker Hotel is a fortunate choice for the affair. It is situated just outside the Loop, has convenient parking facilities and is equipped with a spacious ball room. The dance floor is of glass, illuminated from below. Contributions received thus far for the souvenir bags bear out an earlier prediction that manufacturers would respond as well, if not better, than in previous years with donations of advertised products—soaps, perfumes and allied items. Reports from members have already been received which indicate that a larger crowd will assemble than has been seen at an Association banquet for many years.

Announcement of the new banquet policy was made to the members by President Harold E. Lancaster at the meeting held at the Midland Club on Wednesday, November 4th. A large crowd was present, for a special attraction was offered in the form of entertainment by Axel Christensen, humorist and pianist. The price of the luncheon was reduced, at this meeting, from $1.25 to $1.00, where it will remain hereafter.

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A special meeting of the American Cosmeticians Association was held in the Louis XVI Room of the Hotel Sherman on Monday evening, October 19, for the installation of officers elected at the convention on August 19th. After President Mrs. M. B. McGavran, the four vice-presidents and other officers had been officially received, an educational revue composed of addresses was offered.

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On November 4th, President O. H. Raschke, of the Chicago Drug and Chemical Association, sent a letter to all members announcing that there would be no charge for tickets to the Association's Annual Banquet. He stated that the directors felt that the Association's funds, which at this time are plentiful, should be spent for the benefit of the members and that this was a particularly auspicious time for so doing. Consequently, all expenses will be met by the treasury. The banquet will be held in the Stevens Hotel Ball Room on Thursday evening, December 18. There will be food and entertainment quite as excellent as in past years. The affair will be strictly "stag" with tickets nontransferable and admission limited to members only. Entrance, in fact, may be gained only by tickets accompanied by membership cards. President Raschke further informed the members that the Chicago Drug and Chemical Association Directors had arranged to contribute $250.00 to the Illinois state fund for the unemployed and needy. Arrangements for the banquet are in charge of Wm. O'Neill, Chairman, and W. A. Kochs, Vice-Chairman.

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P & G Stockholders Meet

Procter & Gamble Co. has applied to the New York Stock Exchange for permission to list for trading 46,569 additional shares of February 1, 1929, issue common stock. These were previously part of the 125,000 share issue of June 1, 1930, but following action of the stockholders at the October 14th meeting they were converted into the 1929 issue on a share for share basis in order to secure listing on the Exchange. Listing was denied the shares as a part of the 1930 issue which was deemed to have insufficient distribution to justify listing. Another matter to come before the P. & G. stockholders at the October meeting was re-election of directors. Thomas Peters of Ivorydale, Harry Goodey of Port Ivory and Henry J. Meyer of Kansas City were elected employee-directors to succeed William Bierman, Henry Walters and Charles Ryan. They will serve for one year. Other directors were re-elected.

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Monsanto Chemical Works has recently published a booklet illustrating by pictures of the daily life of the ordinary man just how Monsanto chemicals help take care of his every-day needs. The booklet is entitled "How Monsanto Serves." Copies may be obtained by addressing the company at St. Louis.

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Its wholesale price list on essential oils and aromatic chemicals has recently been issued by Ungerer & Co., New York, as of November, 1931.

N. W. D. A. Meets in Atlantic City

Roblin H. Davis is the new president of the National Wholesale Druggists' Association, elected at the close of the fifty-seventh regular meeting of the group in Atlantic City, N. J., October 19 to 22. Officers chosen to serve with Mr. Davis include: vice-presidents, Henry J. Bowerfind, Allen D. Berry, Charles A. Loring, Lee W. Hutchins and P. A. Hayes; secretary, E. L. Newcomb; and general representative Frank E. Holliday. Among the topics which were taken up for discussion at the business sessions were a number which have given the drug industry increasing concern in recent months. These problems included free deals, combination offers, the ten per cent package and the sharp competition of "pine board" stores. W. L. Crounse, Washington representative, presented the Legislative Report and J. M. Doran also addressed one of the sessions. Entertainment features of the meeting included a golf tournament, a carnival dance and the annual banquet. Harry J. Schnell acted as chairman of the entertainment committee.

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A firm in Lisbon, Portugal, desires to act as manufacturing and selling agent for an American firm interested in soap production in that country. A high tariff makes importation of finished soaps and toilet preparations impossible. Interested firms may apply to the Foodstuffs Division of the Bureau of Foreign and Domestic Commerce, Washington referring to the number, 26,974.

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Hercules Powder Co. has completed negotiations for taking over Paper Makers Chemical Corp. according to an announcement October 19th by Russell H. Dunham, president of the former concern. The acquired concern operates fifteen plants in the United States and has conducted a wide business in rosin, chemicals, soap powders, scouring compounds and cleaning compounds.

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According to a decision under section 304 of the 1930 Tariff Act, individual cakes and bars of soap must be marked to indicate the country of origin when they are imported into United States. This is in addition to the marking of the immediate containers and outer packages.

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Wilson & Bennett Mfg. Co., Chicago, announce the appointment of Southwest Sales Co. of Dallas, Texas, as sales representative for the state of Texas. J. B. Shortridge and Mr. W. M. Roberts will cover this territory and warehouse stocks will be maintained. Sales offices are at 2412 Coombs Street; the telephone is 4-3011.

Soap Importers in Duty Disputes

Two cases requiring decisions as to whether imported articles are toilet preparations dutiable at 75 per cent or soaps at 15 per cent have been docketed for hearing before the United States Court of Customs and Patent Appeals. The Treasury is the appellant in a matter involving importations of Julius Anghel and the Globe Shipping Company, found by the district court to be a powdered soap and not a toilet preparation. In the second case, the American Shipping Company and C. F. Wunderlich & Co., have appealed from a ruling that their import is a toilet preparation. The customs court in arriving at the first of these two decisions relied chiefly upon a chemical analysis which showed, in a representative sample, 71 per cent anhydrous powdered soap, 21.40 per cent borax, and 7.60 per cent moisture, perfume, etc. In the second case, a label on the product printed in German was translated and struck a telling blow against the appellant as it described the product in question as a shampoo.

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To Test California Price Maintenance Law

In a letter sent to a group of thirty prominent manufacturers of drugs and toilet preparations Edward Plaut, president of Lehn & Fink, Inc., has proposed a practical test of the recently adopted California price maintenance legislation. He proposes a cooperative agency with sole selling rights in California, to avoid the necessity of each company's operating a plant and warehouse in California which would be called for under the attempt of any individual company to test the legislation. With one central cooperative warehouse the expense of a complete test would not be prohibitive. In asking the firms in his field to unite for a joint test of the California laws Mr. Plaut expressed the hope that similar tests might be conducted by other industries.

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A large factory is being erected in Bombay, India, which will, among other activities, engage in the manufacture of soaps, vegetable oils and hydrogenated fats. According to the U. S. Department of Commerce it is being financed by Dutch capital to the amount of $900,000. Oilseeds of all kinds will be processed, and soaps, margarine, dyes, paints, etc., will be manufactured. The reasons for the formation of the company are given as inland competition, high customs duties on imports and the abundance and cheapness of raw materials and native labor.

—o—

Dental creams to the value of $149,338 were exported from United States during August, 1931, as well as $14,146 worth of other dentifrices.

When it comes

to supplying the soapmaker

with perfume materials, we are in position to furnish the highest quality merchandise at interesting prices.

When Again in the Market for

Oil Rosemary Spanish
Oil Thyme Red and White
Oil Lavender Flowers French
Oil Vetivert Bourbon and Java
Oil Geranium Bourbon and African

Write Us for Prices.

All Products of

Bertrand Freres, S. A.
GRASSE FRANCE

Sole Representative U. S. and Canada

P. R. DREYER INC.
26 CLIFF STREET NEW YORK

Agent for

PAOLO VILARDI	H. RAAB & CO.	VANILLIN FABRIK
Reggio Calabria, Italy	Roermond, Holland	Hamburg, Germany
Essential Oils	*Artificial Musks*	*Aromatic Chemicals*

PERSONAL AND IMPERSONAL

Colgate-Palmolive-Peet Co. is defendant in a $100,000 suit brought by Wallace E. McCaw, formerly a vice-president of the company. The basis for Mr. McCaw's suit is assistance he claims to have rendered in connection with the acquisition of Kirkman & Son by his former employers.

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Procter & Gamble Co. was awarded second prize in a recent Philadelphia Business Progress Association contest to select the best employment planning program.

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B. F. Flynn, head of Pacific Soap Co., Los Angeles, recently returned to the coast after a trip to New York, Chicago and Boston. While in the East Mr. Flynn made a number of additions to the equipment of the Pacific Soap Co. which were made necessary by recent increases in business.

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Merck & Co., Rahway, N. J., will exhibit in the Hall of Science at the coming Chicago fair, "A Century of Progress," the exhibit being of an educational nature to acquaint the public with the mechanics of prescription filling and the fine arts of the apothecary. Dioramas will depict the Merck plant and a cinchona plantation.

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The King of Italy has conferred upon George Nunes, vice president of Leghorn Trading Co., New York, the title of Commendatore of the Order of the Crown of Italy.

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Production has been accelerated at Colgate-Palmolive-Peet Company's Milwaukee factory within the past month, according to E. J. Reddert, superintendent. About fifty employees have been added and half the plant is now running on a twenty-four hour schedule.

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Clyde Stodghill has been transferred to the Milwaukee Lever Bros. branch to assist in handling increased business which has developed in that territory.

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Frederick S. Fayles, vice-president of Standard Oil Co., has been appointed chairman of the oils and greases committee of the Emergency Unemployment Relief Committee's division of Commerce & Industry and will take charge of raising funds among this New York group for the relief of acute distress resulting from unemployment. Corporations, as well as executives and employees of the corporations, will be given the opportunity to contribute such sums as are commensurate with their incomes in the campaign which will shortly get under way.

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McKelvey Co., Youngstown, Ohio, is offering a new and larger bar of hard water soap in a range of scents and colors.

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W. A. Comar of Asheville, North Carolina, has recently become associated as traveling representative with Magnus, Mabee & Reynard, Inc., of New York, importers and manufacturers of essential oils, aromatic chemicals and balsams. Mr. Comar will cover the states of Arkansas, Louisiana, Mississippi, Oklahoma and Texas.

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Felix Lowy, vice-president of Colgate-Palmolive-Peet Co., Chicago, has been elected a director of the Audit Bureau of Circulations.

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F. W. Fitch Co., Ltd., subsidiary of the toilet preparations manufacturers of Des Moines, has leased space at 266 Front street W., Toronto. George Davis is in charge of the Canadian company.

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A campaign to stimulate sales of Bost toothpaste in New England is being conducted through the medium of radio broadcasting and newspaper advertising.

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Dodge & Olcott Co., New York, has issued its Essential Oil price list for November and December, 1931.

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Swift & Co. recently put into effect a program of salary reduction which involved a general cut of 10 per cent.

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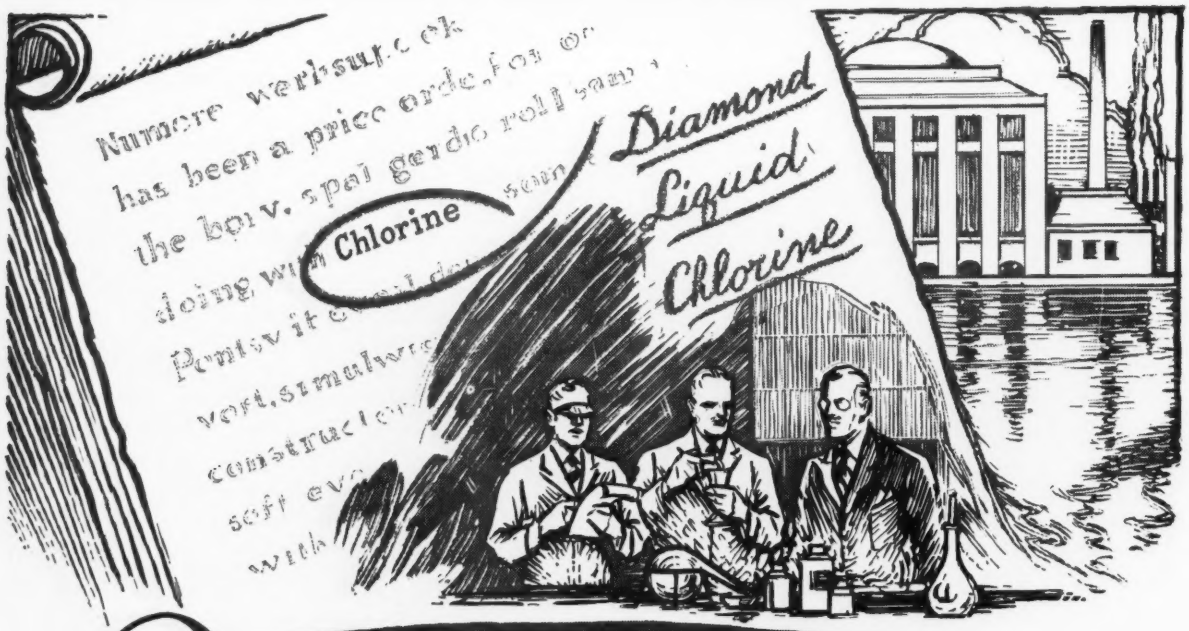
McKesson & Robbins, Inc., Bridgeport, Conn., are establishing a million dollar Canadian factory in Montreal.



Please *mark* that PLAINLY

Many manufacturers are positive in their preference for DIAMOND LIQUID CHLORINE . . . they have found its purity and quality always constant and unvarying . . . they have learned by experience that it is always readily available at all times . . . reasons why DIAMOND LIQUID CHLORINE deserves *your* confidence, too. Inquire about our quotations and delivery.

Diamond Alkali Company

Pittsburgh, Pa., *and Everywhere*

CHLORINE

DIAMOND *Liquid* CHLORINE

Say you saw it in SOAP!

Cyril S. Kimball, of Foster D. Snell, Inc., New York, consulting chemists, recently sailed for Havana on business. He was expected to return to New York before the middle of November.

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A. J. Chamberlain, manager of the steel package division of Geuder, Paeschke & Frey Co., Milwaukee, has announced the appointment of Warren T. Trask as Chicago branch manager of the company's steel package division. Mr. Trask will make his headquarters at the company's Chicago branch plant, 352-358 West Ohio Street, and will have charge of all sales throughout the Chicago district.

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Francis Chilson, consulting engineer, has instituted a special group consulting service at extremely moderate fees for small manufacturers whose business does not gross over $500,000 annually. Mr. Chilson believes that there has long been felt a need for the services of consulting experts among the smaller manufacturers and has endeavored to organize his new service in such a manner that each subscriber receives expert advice on his own particular problems at a minimum of expense.

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National Soap and Polish Company of Cleveland which started operations in April of this year is now producing a complete line of household polishes, cleansers and soaps as well as automobile polishes and soaps. These products are marketed direct to the homes. W. Bruce Friendship formerly of Harshaw Chemical Company and C. F. Schriner formerly of The National Steel Barrel Company founded the company and are actively participating in building up the business.

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P & G Coast Plant Now Operating

The Long Beach soap plant of Procter & Gamble Co. went into operation early in October with two-thirds of the facilities being utilized and approximately 600 employees at work. The edible oil division of the plant has been in operation since July. The formal public opening of the entire $5,000,000 project will be deferred until early in 1932 when the clearing and landscaping of the grounds will have been completed. Robbin Z. Smiley is district superintendent in charge of the plant which will supply soap and edible products to the entire Pacific coast area. Harbor facilities for deep-water vessels have been constructed adjoining the plant.

Louis A. Waltke Dies

Louis A. Waltke, formerly president of William Waltke & Co., St. Louis, died of cerebral hemorrhage, October 15th, at the age of 45.

LOUIS A. WALTKE

Since the sale of William Waltke & Co. to Procter & Gamble Co. in 1927, Mr. Waltke had been associated with his two brothers, Richard H. and Herbert W. Waltke in the management of the Waltke Investment Co. Born in St. Louis in 1886 Mr. Waltke entered the soap company headed by his father shortly after his graduation from Walther College and St. Louis College of Pharmacy. He was successively vice-president, general manager and finally president of the concern. He was married in 1917 to Mrs. Lavinia Scott. They were divorced a year later. Surviving Mr. Waltke are his father, his two brothers and two sisters, Mrs. H. J. Heitner of St. Louis and Mrs. John K. Nimock of New York. Among the organizations in which Mr. Waltke was active are Missouri Athletic Association, Chamber of Commerce and Sunset Hill Country Club. He was also prominent in work of the Lutheran church.

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Revised Soap Census Figures

Revised figures for the 1929 Census of Manufactures show that the total value of all products of the soap industry in 1929 was $310,191,530, rather than the preliminary figure of $303,377,358 announced earlier. The preliminary report was published in full in the November, 1930, number of *Soap*. Other changes in the final figures include an increase in the estimate of the quantity of hard soaps produced from 2,188,613,984 pounds to 2,250,663,402 pounds. Production of white laundry soaps totaled 914,588,831 pounds, worth $51,175,255, rather than the 776,032,661 pounds, worth $41,362,321 reported earlier. Ohio is the center of the soap industry according to the 1929 totals, having passed New York which led in 1927. Illinois ranked third in the states individually listed. It was not possible to fix the exact position of Massachusetts since its totals are not shown separately.

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Lamont, Corliss & Co. and Pond's Extract Co. have been denied the right to appeal a stearic acid duty case to the U. S. Supreme Court. Two previous appeals to the U. S. Court of Customs and Patent Appeals have been lost.

For

Twenty-five Years

--the money from the sale of Christmas Seals has promoted:

—the establishment of sanatoriums for treating tuberculosis
—the finding of tuberculosis in time to effect a cure
—adequate health inspection of school children
—the teaching of habits that help to insure good health
--the bringing of the necessary rest, good food, sunshine, fresh air, medical attention to sick children

Help Fight Tuberculosis

BUY CHRISTMAS SEALS

THE NATIONAL, STATE AND LOCAL TUBERCULOSIS ASSOCIATIONS OF THE UNITED STATES

Say you saw it in SOAP!

ON PRODUCTS AND PROCESSES

During the alcoholic saponification of oils the formation of ethyl esters occurs almost immediately, while formation of the soap is very slow, especially toward the end of the reaction. This difference in time of formation may cause high results in the determination of unsaponifiable matter, because of the presence of ethyl esters in the residue. The difficulty may be avoided by long-continued saponification with considerable excess of alkali. *Z. Angew. Chem.* 44, 565-7 (1931).

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For the production of a light colored soap from dark soap stock, the stock is treated with hydrogen peroxide and a concentrated solution of caustic alkali, which is used in excess of the quantity required to neutralize the total fatty acid of the stock. U. S. Pat. No. 1,813,512.

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A patented composition said to be suitable for use as a soap powder is formed of 10 per cent soap, 2.5 per cent colloidal clay, 45 per cent soda ash and 45 per cent water. The percentages of all ingredients are figured on the dry basis. U. S. Pat. No. 1,813,247.

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A non-caking detergent powder said to be readily miscible with water and suitable for laundry use comprises granulated sodium metasilicate with about one-third its weight of neutral soap and twice its weight of soda ash.

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The soap test method of determining hardness in water, while lacking the accuracy of an analytical procedure, is nevertheless capable of giving a very fair approximation of the true value in the hands of an experienced operator, and where it is used upon a single water for the purpose of measuring variations in hardness, the results have a considerably greater degree of reliability. There are certain factors, however, which may affect its accuracy even under these favorable conditions and, therefore, certain precautions must be observed to avoid the possibility of error. The necessity for these precautions arises from the fact that the test actually measures the soap-consuming power of the water rather than its hardness, and any condition of the water tending to promote or inhibit the formation of lather, or tending to decompose or precipitate the soap, may thus introduce errors into the determination.

The temperature of the water has a very considerable influence on the soap test, there being an apparent increase in hardness with decreasing temperature. For instance, in Chicago, where the winter temperature of the water is 1.5 to 2.0 degrees C., the error amounts to 4 drops of soap. The effect of temperature is independent of the true hardness of the water up to 3 or 4 grains per gallon, the increase in soap requirement being identical for a "2-drop" water and a "15-drop" water.

Like low temperature, free carbon dioxide is a very disturbing factor. In the field its influence appears to be very erratic, owing in part to its volatility, and in part to the fact that its effect varies with the alkalinity of the water, the hardness and other factors. The influence of carbon dioxide decreases very markedly with increasing alkalinity of the water. This indicates that the effect is a function of hydrogen-ion concentration rather than of the carbon dioxide itself. It is substantiated by the fact that a similar increase in soap requirement is obtained with distilled water, free of carbon dioxide, to which minute quantities of mineral acid have been added.

The difficulty caused by the presence of carbon dioxide and mineral acid may be completely removed by adding to the soap solution sufficient sodium hydroxide to neutralize the acidity of the water, which re-establishes very satisfactorily the proportionality between true hardness and drops of soap up to 3 or 4 grains per gallon. *Ind. & Eng. Chem. Anal. Ed.* 3, 355-6 (1931).

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A cleaning composition suitable for use on clothes consists of a mixture of 30 to 70 parts of carbon tetrachloride with 70 to 30 parts of propylene dichloride. Ethylene dichloride also may be added. U. S. Pat. No. 1,817,582.

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Harry J. Hosking has resigned his position in the research laboratory of the Roessler & Hasslacher Chemical Co. at Niagara Falls, N. Y., to take up similar work with Foster D. Snell, Inc., 130 Clinton Street, Brooklyn, N. Y.

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United States exports of laundry soaps during August, 1931, amounted to 1,570,372 pounds, worth $104,967, as compared with 4,390,476 pounds, valued at $291,191, during August, 1930.

DON'T LET TUBE TROUBLES HAMPER SALES

THE tubes that cloak your product have plenty to do with sales you win or lose. We know they can make or miss repeat sales. Sun Tubes are manufactured with this in mind. And that's why our engineering standards, modernized methods and precision machines make it easy for products packed in Sun Tubes to mount high in sales. Certainly sales have steadily risen with Sun. Take your tube troubles to Sun and we'll cut them to a minimum—at no higher cost to you!

SUN TUBE CORPORATION
HILLSIDE, N. J.

Say you saw it in SOAP!

CONTRACTS AWARDED

Kranich Soap Co., Brooklyn, has been awarded the contract to supply Fort Sam Houston quartermaster with 4,000 lbs. castile soap at a price of 7.4c. Other bids and bidders were as follows: Crystal Soap and Chemical Co., Phila., 13.7c; Armour & Co., San Antonio, 9.425c and 8.875c; Holbrook Mfg. Co., Jersey City, 9.75c; Swift & Co., San Antonio, 7.583c; San Antonio Drug Co., San Antonio, 24c; Green Oil Soap Co., Chicago, 17.5c; and Sam Reisfeld, New Orleans, 9.25c.

—o—

The following low bids were entered by the companies named in a recent Wright Field supply bidding: 1,872 cakes grit soap, Hunnewell Soap Co., Cincinnati, 2.9; 1,008 cakes grit soap, Hunnewell Soap Co., 2.1c; 1,050 lbs. castile soap, Colgate-Palmolive-Peet Co., 6c; 2,550 gals. liquid soap, Windsor Soap Co., Washington, 4.1c; 2,000 lbs. powdered soap, Armour & Co., 1.44c; 6,000 lbs. soft soap, Du Bois Soap Co., Cincinnati, 2.9c.

—o—

Beach Soap Co., Lawrence, Mass., was low bidder on 5,000 lbs. chip soap for Panama Canal supplies in a recent bidding, with a quotation of $244. Other bids and bidders were as follows: Armour & Co., $260.50; Colgate-Palmolive-Peet Co., $265; General Soap Co., San Francisco, $247.50 Holbrook Mfg. Co., Jersey City, $275; Procter & Gamble Distributing Co., $248.50; Swift & Co., $257.50; and Unity Sanitary Supply Co., New York, $350.

—o—

In a recent Panama Canal bidding for scouring compound, Unity Sanitary Supply Co., New York, entered the low bid of $450 on 20,000 lbs. Other bids and bidders were: Armour & Co., Chicago, $588; Crystal Soap & Chemical Co., Philadelphia, $678; General Soap Co., San Francisco, $680; Nemo Chemical Co., Brooklyn, $546.

—o—

U. S. Sanitary Specialties Corp. has been awarded the contract for supplying the government printing office, Washington, with 100 soap valves. The contract calls for a payment of $110.

—o—

Jas. Good, Inc., has been awarded the contract to supply 25,000 bars scouring soap for Brooklyn army medical department at 3.49c; 400 cans floor wax at 66.29c; 4,000 cans floor polish at 38.29c; and 400 cans floor polish at $1.738. Nemo Chemical Co. awarded 4,600 cans metal polish at 6.875c. Windsor Wax Co. awarded 500 cans floor wax at 21.3c.

—o—

Merchandising of Drug Products, by Paul C. Olsen. 8¼ x 5½. 260 pages. D. Appleton & Co., New York. $2.50. Merchandising problems of drug wholesalers and retailers are discussed in this first volume on the subject which serves as a text in schools of the American Association of Colleges of Pharmacy. Some of the common mistakes to be avoided in the merchandising of drug products are detailed and reference is made to methods which have proved successful in past practice. The approach to the subject matter is rather general in tone, as the volume is designed for use by those comparatively inexperienced in the field.

—o—

Guyton & Cumfer Manufacturing Co., 4441 Fillmore St., Chicago, has issued a catalog describing its hot process for the conveyance of liquids through steel-jacketed pumps and fittings. The equipment has been developed exclusively by this company and has found a wide use in industries where the conveyance of soaps, fatty acids, waxes, etc. constitutes a problem. Copies of the catalog may be obtained by writing to the company's Chicago office. Features of the equipment include the fact that it can be used on a job by any pipe fitter, inasmuch as steel pipe is used throughout. The company states that no welding of pipes is required and that hot oil or hot water may be used as the heating medium.

—o—

Grasselli Chemical Company, Cleveland, has just issued a folder on sodium metasilicate, describing the various properties of this new product. Special attention is given to its use as a detergent and soap builder. Copies of the folder may be obtained by writing to the Cleveland office, 1300 Guardian Bldg.

—o—

Russell Howe and E. D. Osborne have announced the severance of their connections with United Chemical & Drug Corp., Bridgeport, Conn. Russell Howe was formerly a partner in King & Howe, New York, which was taken over by United Chemical & Drug at the time of formation of the latter concern. He is the son of the late James H. Howe, for many years secretary of Dodge & Olcott Co.

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yet always accomplished in

NIAGARA
CAUSTIC POTASH

IT is a known fact that Caustic Potash is difficult to produce in a pure state. Much more so, in fact, than is the case with Caustic Soda. Yet Niagara Caustic Potash is outstanding in excellence . . . always.

That is to be expected, for Niagara Alkali was the first in this country to manufacture this essential to soap-making. Today, Niagara is the highest grade of potash obtainable here or abroad.

The many years of close, expert attention we have given to the development of high quality Caustic Potash . . . and Caustic Soda . . . is your assurance of satisfaction.

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Pioneer Manufacturer of Liquid Chlorine

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Say you saw it in SOAP!

RECORD OF TRADE-MARKS

The following trade-marks were published in the October issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

Trade Marks Filed

Pronto—This in solid letters describing cleaner and polish. Filed by Pronto, Inc., Ballardvale, Mass., Apr. 6, 1931. Claims use since Sept. 1, 1930.

Sun-Glo—This in solid letters describing metal polish and cleaner. Filed by Household Helps Co., Burlington, Vt., June 12, 1931. Claims use since June 1, 1929.

Purox—This in solid letters describing cleaning compound. Filed by Purox Prods. Co., Chicago, June 15, 1931. Claims use since June 1, 1931.

Soproco—This in solid letters describing cleaning compound. Filed by Southern Prods. Corp., New Orleans, July 14, 1931. Claims use since Feb. 20, 1931.

Mist-Tox—This in solid letters describing insecticide. Filed by Goodrich-Gamble Co., St. Paul, Minn., Apr. 30, 1931. Claims use since Mar. 31, 1931.

Jimco Wash—This in solid letters describing germicide and disinfectant. Filed by Jimco Chemical Co., Laurelton, N. J., May 19, 1931. Claims use since Apr. 30, 1930.

Black Flag—This in solid letters with Spanish words describing insecticides. Filed by Black Flag Co., Baltimore, July 21, 1931. Claims use since Apr., 1929.

Lucky Camel—This in solid letters describing tooth paste and powder. Filed by Ira J. Shapiro, New York, Aug. 31, 1931. Claims use since Aug. 22, 1931.

Fax—This on reverse plate describing washing powder. Filed by Fax Products Co., Lansing, Mich., May 25, 1931. Claims use since Dec. 1, 1930.

Na-Zo—This in solid letters describing hand soap, metal cleaner and polish. Filed by National Soap & Polish Co., Cleveland, June 10, 1931. Claims use since June 4, 1931.

Aywon—This in solid letters describing shaving cream and hand soap. Filed by Jaciel Perfumers, Inc., New York, Aug. 5, 1931. Claims use since Jan. 13, 1928.

Seventeen—This in script describing toilet soap. Filed by Colgate-Palmolive-Peet Co., Chicago, Aug. 24, 1931. Claims use since Aug. 20, 1931.

Noant—This in solid letters describing insecticides. Filed by S. F. Moulton, Los Angeles, June 8, 1931. Claims use since Mar. 18, 1931.

Polar—This in solid letters with picture of polar bear describing insecticide. Filed by Barrett Co., New York, July 1, 1931. Claims use since 1916.

Rusite—This in solid letters describing cleaning preparation. Filed by Rumford Chemical Works, Rumford, R. I., June 4, 1931. Claims use since Nov. 1, 1930.

Clover Farm—This in solid letters describing toilet, laundry, granulated soaps, soap chips, and cleansing powder. Filed by Clover Farm Stores, Cleveland, Aug. 8, 1931. Claims use since 1882.

Fancy-Press—This in solid letters describing soap. Filed by Walter R. Kirk, Chicago, Aug. 15, 1931. Claims use since Aug. 6, 1931.

Kolynos—This in solid letters on carton describing dental cream. Filed by Kolynos Co., New Haven, Conn., Aug. 11, 1931. Claims use since Feb. 13, 1928.

Ambassador—This in solid letters describing insecticides. Filed by Ambassador Chemical Co., Los Angeles, Sept. 8, 1931. Claims use since Mar. 1, 1930.

Hy-Dex—This in solid letters describing washing powder and cleansing compound for furniture. Filed by Modern-Method Labs., Cleveland, Aug. 3, 1931. Claims use since July 23, 1931.

Colgate's Handy Grip—This in solid letters on carton describing shaving soap and sticks. Filed by Colgate-Palmolive Peet Co., Chicago, Aug. 24, 1931. Claims use since Aug. 15, 1916.

Bugol—This in solid letters enclosed in circular design describing insecticide. Filed by Orange Mfg. Co., Orlando, Fla., Sept. 22, 1930. Claims use since Aug. 18, 1930.

Tiger—This on reverse circular plate with head of tiger describing solvent and chemical cleaner. Filed by Tiger Prods. Co., Buffalo, N. Y., June 15, 1931. Claims use since Mar. 23, 1931.

Blesson—This in solid letters describing shampoos. Filed by Studio Prods. Co., Los Angeles, June 16, 1931. Claims use since Oct. 1, 1930.

Two in One—This in outline letters describing moth preventative. Filed by Odora Co., New York, July 31, 1931. Claims use since Apr. 20, 1931.

Toxa Rose—This in solid letters describing disinfectant and insecticide. Filed by Dixie Chemical Co., Cincinnati, Aug. 25, 1931. Claims use since June 1, 1931.

Pine-Ray—This in solid letters describing shampoo. Filed by Walter Ferry, New York, Aug. 25, 1931. Claims use since Aug. 3, 1931.

Nas-O-Dent—This in solid letters in diamond shape border describing dentifrice. Filed by Nas-O-Dent Co., Washington, D. C., Aug. 26, 1931. Claims use since May 15, 1931.

Terminix—This in broken letters describing insecticide. Filed by E. L. Bruce Co., Memphis, Tenn., Aug. 31, 1931. Claims use since Nov. 1, 1928.

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Trade Marks Granted

287,371. Antiseptic. Alka-Septol, Inc., Beacon, N. Y. Filed May 6, 1931. Serial No. 314,222. Published June 23, 1931. Class 6.

287,383. Dental Cream. K. D. Chemical Co., St. Petersburg, and Philadelphia. Filed April 22, 1931. Serial No. 313,688. Published June 23, 1931. Class 6.

287,454. Shoe Polish. Frank J. Le Doyen Co., Baltimore. Filed April 3, 1931. Serial No. 312,921. Published July 21, 1931. Class 4.

287,455. Cleaning Compound and Metal Polish in Nature of a Soap. Secure-Lab, San Francisco. Filed April 3, 1931. Serial No. 312,928. Published July 21, 1931. Class 4.

287,459. Cleansing Preparation. Soonite Co., San Francisco. Filed April 29, 1931. Serial No. 313,957. Published July 21, 1931. Class 4.

287,466. Liquid Dry Cleaning Soap. R. R. Street & Co., Chicago. Filed May 18, 1931. Serial No. 314,724. Published July 21, 1931. Class 4.

287,468. Cleaning Compound. Quigley Co., New York. Filed May 23, 1931. Serial No. 314,964. Published July 21, 1931. Class 4.

287,482. Dental Cream. Colgate-Palmolive-Peet Co., Chicago. Filed May 25, 1931. Serial No. 314,982. Published July 14, 1931. Class 6.

287,488. Insecticide. Protex Corp. of America, Springfield, Mass. Filed May 9, 1931. Serial No. 314,377. Published July 21, 1931. Class 6.

287,501. Insecticide. Miller Products Co., Portland, Oreg. Filed March 27, 1931. Serial No. 312,678. Published July 7, 1931. Class 6.

287,526. Preparations for Destroying Moth Larvæ and Eggs. Regal Products Co., San Francisco. Filed February 19, 1931. Serial No. 311,246. Published July 14, 1931. Class 6.

287,557. Cleaning and Polishing Preparation. Stanco Inc., Wilmington. Filed September 3, 1930. Serial No. 305,289. Published July 21, 1931. Class 4.

287,564. Chlorine Disinfectant. C. B. Dolge Co., Westport, Conn. Filed December 29, 1930. Serial No. 309,420. Published July 14, 1931. Class 6.

287,604. Toilet Preparations. Houbigant, Inc., New York. Filed May 15, 1931. Serial No. 314,614. Published July 21, 1931. Class 6.

287,605. Toilet Preparations. Houbigant, Inc., New York. Filed May 15, 1931. Serial No. 314,613. Published July 21, 1931. Class 6.

287,769. Moth Preventative and Destroyer. Vaporet Corp. of America, New York. Filed May 16, 1930. Serial No. 300,697. Published July 22, 1930. Class 6.

287,778. Tooth Powder. Dentalade Co., New York. Filed May 16, 1931. Serial No. 314,651. Published July 14, 1931. Class 6.

287,783. Insecticide. Sirocco Manufacturing Co., La Fargeville, N. Y. Filed May 12, 1931. Serial No. 314,474. Published July 14, 1931. Class 6.

287,792. Common Soap and Laundry Soap in Spray Form. Gold Dust Corp., New York. Filed June 4, 1931. Serial No. 315,393. Published July 28, 1931. Class 4.

288,093. Cleansing Compounds. Solvay Process Co., Syracuse, N. Y. Filed May 23, 1931. Serial No. 314,968. Published August 4, 1931. Class 4.

288,094. Cleansing and Scouring Compound. Solvay Process Co., Syracuse, N. Y. Filed May 23, 1931. Serial No. 314,969. Published August 4, 1931. Class 4.

288,098. Metal Polish. Guerin & Lorimer, New York. Filed June 4, 1931. Serial No. 315,395. Published July 28, 1931. Class 4.

288,100. Soap. Kresge Department Store Corp., Newark, N. J. Filed June 8, 1931. Serial No. 315,539. Published July 28, 1931. Class 4.

288,102. Soap. Gordon-Allen, Ltd., Oakland, Calif. Filed June 9, 1931. Serial No. 315,595. Published July 28, 1931. Class 4.

288,105. Shaving Cream. Viviny Perfumers, Inc., West Haven, Conn. Filed June 10, 1931. Serial No. 315,662. Published July 28, 1931. Class 4.

288,108. Shaving Cream. Colgate-Palmolive-Peet Co., Chicago. Filed June 12, 1931. Serial No. 315,731. Published July 28, 1931. Class 4.

288,110. Cleaning Compounds. Cee-Bee Products, Los Angeles. Filed June 12, 1931. Serial No. 315,728. Published August 11, 1931. Class 4.

288,111. Cleaning Preparation. New England Chemical Associates, New York. Filed June 16,

1931. Serial No. 315,945. Published August 11, 1931. Class 4.

288,148. Stove Polish. Parlor Pride Mfg. Co., North Andover, Mass. Filed May 16, 1931. Serial No. 314,652. Published August 4, 1931. Class 4.

288,151. Cleansing Preparations. Solvay Process Co., Syracuse, N. Y. Filed May 23, 1931. Serial No. 314,965. Published August 4, 1931. Class 4.

288,189. Soap. Colgate-Palmolive-Peet Co. Chicago. Filed April 27, 1931. Serial No. 313,-833. Published July 23, 1931. Class 4.

288,195. Shaving Cream. Colgate-Palmolive-Peet Co., Chicago. Filed June 18, 1931. Serial No. 315,989. Published July 28, 1931. Class 4.

288,204. Shaving Cream. Colgate-Palmolive-Peet Co., Chicago. Filed June 12, 1931. Serial No. 315,730. Published July 28, 1931. Class 4.

288,214. Cleansing Compound. Argol Chemicals, Inc., Baltimore. Filed March 2, 1931. Serial No. 311,592. Published July 28, 1931. Class 4.

288,225. Shoe Polish. Midway Chemical Co., Chicago. Filed May 14, 1931. Serial No. 314,572. Published July 28, 1931. Class 4.

288,302. Soap. Procter & Gamble Co., Cincinnati. Filed September 25, 1930. Serial No. 306,-070. Published July 28, 1931. Class 4.

288,315. Polish for Automobiles and Furniture. Ray-Glo Chemical Co., Baltimore. Filed May 18, 1931. Serial No. 314,726. Published August 11, 1931. Class 16.

288,324. Disinfectant, Insecticide and Deodorant. Permozone, Inc., New York. Filed May 1, 1931. Serial No. 314,072. Published August 4, 1931. Class 6.

288,325. Disinfectants, Deodorants and Germicides. M. D. Laboratories, Cleveland. Filed May 1, 1931. Serial No. 314,088. Published August 4, 1931. Class 6.

288,339. Wood Shavings for Repelling Moths. Alreit Co., Brooklyn. Filed January 20, 1931. Serial No. 310,151. Published August 4, 1931. Class 6.

288,346. Disinfectant and Germicide. Hughes Chemical Co., Cleveland. Filed February 20, 1931. Serial No. 311,310. Published August 11, 1931. Class 6.

288,349. Tooth Powder. Tannol Co., Yonkers, N. Y. Filed March 9, 1931. Serial No. 311,925. Published August 4, 1931. Class 6.

288,443. Insecticide. Bi-Bi Products Co., Tulsa, Okla. Filed June 2, 1931. Serial No. 315,299. Published August 4, 1931. Class 6.

288,499. Disinfectant. Ralston Purina Co., St. Louis. Filed June 11, 1931. Serial No. 315,-698. Published August 4, 1931. Class 6.

288,500. Disinfectant. Ralston Purina Co., St. Louis. Filed June 11, 1931. Serial No. 315,699. Published August 4, 1931. Class 6.

288,501. Dental Cream. Colgate-Palmolive-Peet Co., Chicago. Filed June 12, 1931. Serial No. 315,729. Published August 4, 1931. Class 6.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

402 Ouray Building, Washington, D. C.

Complete copies of any patents or trade-mark registrations reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-mark Law will also be freely answered by these attorneys.

No. 1,817,664. Dentrifice. Patented August 4, 1931, by Bernard B. Badanes, Woodside, New York. A dentrifice containing a water soluble inorganic magnesium salt not exceeding 1 per cent and adapted to remove freshly formed tartar.

No. 1,820,872. Sulphur Soap. Patented August 25, 1931, by Vincent Sauchelli, Pittsburgh, Pa., assignor to The Koppers Company. As a new article of manufacture, a soap containing sulphur separated by flotation from a liquid previously employed for the purification of fuel gas from hydrogen sulphide and analogous acidic impurities.

No. 1,823,402, Silver Cleaning Composition, Patented September 15, 1931, by Grinnell Jones and Dorothy Weed Marshall, Cambridge, Mass., said Dorothy Weed Marshall assignor to said Jones. A silver cleaning composition of the abrasive type, containing infusorial earth substantially 20%, sodium oleate substantially 20%, an alkali metal halide 5 to 15%, balance water.

No. 1,824,809, Manufacture of Soap, Patented September 29, 1931, by Ernst Flammer and Christian Kelber, Heilbronn, Germany. A process for the manufacture of translucent soap flakes which comprises forming a mixture of sodium and potassium soaps, incorporating therewith a persalt and forming the mass into flakes.

—o—

Chatard and Norris, 218 Water Street, Baltimore, have just been appointed exclusive representatives of Homestead Valve Manufacturing Company, Coraopolis, Pa., for the eastern part of Maryland and the District of Columbia.

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ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES
For the Soap and Insecticide Industries

POWERFUL, LASTING, ODORS FOR SOAP PERFUMES

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Our own distillation—a lasting woody odor.

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Rose crystals—useful with rose ingredients.

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Very persistent flowery character.

ORRIS RESINEX "D & O"
True orris, strong and lasting.

IRALDEINES (Methyl Ionones)
A complete line, especially suitable for soaps, very economical.

BALSAM PERU
We are headquarters—direct importation.

Consult our Perfume Materials Department.

DODGE & OLCOTT COMPANY

180 VARICK STREET NEW YORK, N. Y.

"The integrity of the house is reflected in the quality of its products"

Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of November* 10, 1931)

NEW YORK—The market for essential oils and aromatic chemicals continued to exhibit a weak tone during the period just concluded. Several declines were noted as against only minor advances. The continued weakness of essential oils seems rather unusual in the face of the present situation in primary markets. Crops of raw materials for the manufacture of oils have been smaller this year as the result of unfavorable growth conditions, political disturbances and failure of growers to show usual profits over the past two years. The only factor which keeps prices on the down grade is slackened demand. When increased activity brings a return to normal purchasing it is quite possible that buyers may find themselves unable to obtain needed oils because of a productive capacity geared to the needs of the past year.

Oil Anise

Prices were slightly firmer after the recent decline. The possibility of interference with Chinese shipments has caused sellers to be somewhat wary in making future commitments.

Oil Bergamot

Bergamot oil was quoted lower this period. The Italian association has as yet shown no particular strength and the flurry of six weeks ago has been followed by a drop to $1.80 a pound at the close of the current period.

Oil Cassia

Oil Cassia was slightly firmer this period. China's declaration of war against Japan gave the market definite grounds for contemplating the possibility of interference with future supplies. Developments in Chinese silver exchange also lent strength to this oil. It is now quoted at 97c. pound.

TERPINEOL, C. P.

Water White—Fine Odor—One of the Best Low Cost Odors for Soaps, Fly Sprays, Deodorizing Blocks, etc.

MENTHOL, Synthetic

White Crystals with Fine Natural Odor for mentholated shaving creams, soaps, shampoos, lotions, creams,

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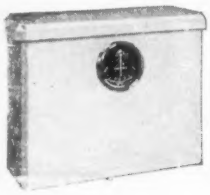

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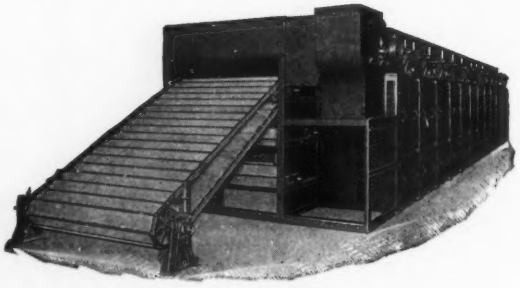
CHIP SOAP DRYING MACHINE



A MACHINE which is a factor of economy and a dependable actor in several soap plants. A machine of slight depreciation and large production. It is liked by attendants as well as by the president of the company. Won't you investigate our offering on your next Chilling Roll and Soap Dryer?

C. G. SARGENT'S SONS CORP.

GRANITEVILLE MASSACHUSETTS

OIL CEDAR WOOD

This oil was seasonally quiet, as many of the users are inactive at this time of the year. Quotations dropped off to 35c. pound, inside.

OIL CITRONELLA

In a spotty market Java oil was slightly firmer while Ceylon oil was less in demand. Closing quotations showed Java oil a cent a pound higher at 57c. inside.

OIL GERANIUM

The spot market on Bourbon oil is a bit easier based on lower replacement costs. If the present decline in shipment prices is maintained a further drop in the spot market may be expected within the course of the next few months.

OIL LAVENDER

Slightly lower quotations on lavender are reported locally this period, in spite of smaller crop reports from the primary markets.

OTTO OF ROSE

This oil continues weak, a further decline of 50c. an ounce being reported this period. This brings the price down to $9.00.

—o—

Standard Aromatics, Inc., Brooklyn, has been formed to act as agents in the United States for Payan & Bertrand, Grasse, France, and Dr. Giuseppe Romeo-Filocamo, Reggio, Calabria, Italy. The new concern has also acquired by purchase the perfume interests of Sherwood Petroleum Co., Brooklyn. Offices will be obtained in Bush Terminal building No. 1. The telephone number is SUnset 6-6600.

—o—

Shampoo classified as a toilet preparation and held dutiable at 75% was claimed to be dutiable as soap at 15% or 30% by American Shipping Co. An appeal filed with the U. S. Court of Customs and Patent Appeals has been denied.

—o—

The first National Exposition of Mechanical Handling which was to have been held at Grand Central Palace, New York, November 30th to December 5th, has been postponed until fall 1933.

—o—

Report 1932 Alkali Schedule Unchanged

Although it is not expected that alkali price schedules for 1932 will be announced until some time after November 15th, reports indicate that prices will not differ from those prevailing during the past few months. On carlots the range has been from $1.12½ to $1.38 per hundred works for soda ash, depending on packing. Carlots of caustic have been priced at $2.50 works for solid, $2.90 for flake and $2.20 for liquid.

Super Water Soluble Essences

We offer the latest *Water Soluble Essences* dissolving quickly in plain clean water, hot or cold, without the use of any alcohol or solvent.

One ounce of essence for one gallon of water will give a satisfactory strong perfume, but the essence will also be soluble if used in a larger proportion.

Prices $1.50 (enough for 16 gallons of water) and higher prices for more fragrant perfumes. Try our Pine-needle essences, or Narciss, Orange flowers, Rose, Oriental and many others.

We also supply a full line of aromatic chemicals and perfuming raw materials.

Write for samples and prices to:

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New York	Chicago	San Francisco	Montreal
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Say you saw it in SOAP!

COLUMBIA BRAND

98% - 100% CAUSTIC SODA

76% Na_2O

Solid — Flake

Ground — Liquid

99% - 100% SODA ASH

58% Na_2O

Light — Dense

Feather

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Santa Fe Terminal Building . . . DALLAS

Plant at BARBERTON, OHIO

Say you saw it in SOAP!

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(*As of November* 9, 1931)

NEW YORK—The market for soap and disinfectant chemicals continued to maintain a steady tone last period. On a number of items the bottom of the price curve seemed definitely to have been rounded, but buyers were slow to respond. Offers by sellers were not expanded, and prices did not undergo any sharp changes. The alkali schedule for 1932 has not yet been announced, but it is expected that something will be known on this subject by December 1. Glycerine quotations were revised downward this period, due to slow demand and foreign competition. Naval stores quotations advanced as a result of lighter arrivals, somewhat larger shipments and consequent reduction in stocks. Pyrethrum was unchanged in the spot market, but local quotations were slightly lower.

ALKALIS

Up to this date the 1932 alkali schedule has not made its appearance, and no indications have yet been received as to what level will prevail on contracts for next year. During the recent period shipments continued in fair volume on contracts, although the spot market retained its quiet tone.

GLYCERINE

Chemically pure glycerine was unchanged in price at the close of this period in spite of reports of increased competition from imported material. Crude was quoted lower as the result of slackened demand lately. There has been but little cold weather to quicken demand from the anti-freeze trade. Demand for dynamite is seasonally reduced. Closing quotations on dynamite ranged from 9c. to 9½c. pound, a reduction of ¾c. Saponification was quoted at 6c. to 6½c. pound, and soaps lye at 5c. to 5½c. pound, these figures representing in each case a reduction of ½c. pound. C. P. was maintained at the 11½c to 12c. figure.

NAVAL STORES

Rosin quotations again advanced this period,

GRASSELLI

Free Flowing

TRI·SODIUM PHOSPHATE

As our process permits Grasselli T. S. P. to cure, it is Free Flowing.

Non-Sifting Packages. Shipped to you in barrels with paper liner—no loss either in transit or storage. Also comes in kegs and bags. Grades—fine, globular, medium and coarse.

Let us figure on your T. S. P. requirements. If you are in a hurry, call up our nearest branch.

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making gains which ranged from 8c. to 90c. per barrel on various grades. Arrivals continued small especially for the lighter grades. This coupled with increased shipments resulted in a substantial reduction in stocks at one point. Increased interest was reported among buyers, both domestic and foreign. Closing quotations were as follows: Gum, Grade B, $4.05, an advance of 30c. barrel from last month; H, $4.18, advance of 13c.; K, $4.23, advance of 8c.; N, $5.75, advance of 75c.; WG, $7.10, advance of 80c.; WW, $7.50, advance of 90c.; Wood, $3.70 to $3.90, no advance from last month.

PYRETHRUM

The primary market for pyrethrum continued fairly firm. This was considered somewhat remarkable in view of the recent absence of buying over an extended period. Fluctuations in prices have been small. Chino-Japanese disturbances have as yet had little effect on the pyrethrum market.

—o—

Imports of toilet and fancy soaps into China from the United States in 1930 were within 4 per cent of their 1929 value, while total imports of these soaps dropped 20 per cent from $1,111,066 in that year to $887,346 in 1930. China bought from United States last year $190,857, just $8,621 less than in 1929, despite the depreciation in Chinese currency. Japan is China's largest supplier of fine soaps and her sales suffered a decrease of 26 per cent from $576,173 to $428,085. Imports of this class from Great Britain also declined 24 per cent from $145,994 to $110,945.

—o—

Net profit of $1,087,886 for the nine-month period ending September 30, 1931, is reported by Hercules Powder Company. This equals $0.81 per share on 606,234 no par common shares.

—o—

Editorial

(*From Page* 20)

tremely common. To point to a list of other organisms against which the germicidal activity of soap is great, is to evade the issue. Soap, to meet the rqeuirements of a germicide in common usage, must meet the conditions most commonly encountered. To be a practical germicide, it should unquestionably kill staphylococci under ordinary conditions. The only soaps which we know of that fall in this class today are those which contain some added product of known germicidal properties.

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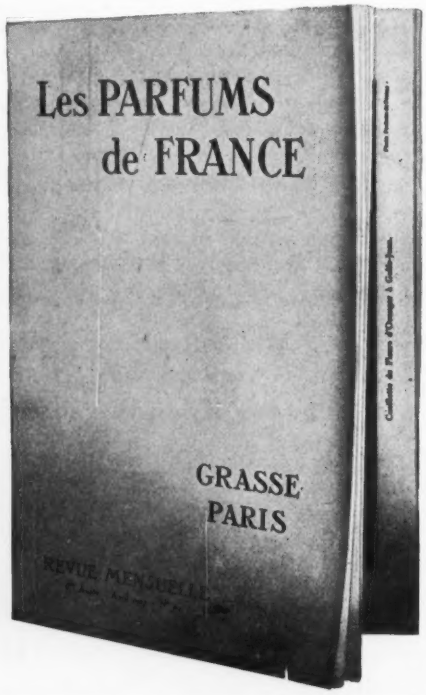

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Market Report on

TALLOW, GREASES AND OILS

(*As of November* 10, 1931)

NEW YORK—The market for soapmaking fats, oils and greases took on a distinctly firmer tone during the period just concluded. Price changes were reported on almost every item in the list, and with only a few exceptions these changes represented advances. The upward movement came as a result of lighter offerings by producers, coupled with an increased demand on the part of users. Much of the buying interest was reported to come from the soap trade. Another factor which affected the oil and fat market sympathetically was the strength shown in the corn and cotton markets this period. Continuance of firm or possibly higher prices depends, of course, on continuance of the present rate of demand. Opinion in the trade indicated that if demand was not sustained at the higher levels a slackening off might be expected.

Coconut Oil

Coconut oil advanced in all markets due to reduced offerings of copra accompanied by a somewhat more active call for oil from the soap trade. At the close of the period New York tanks were quoted at 3⅝c. pound, an advance of ⅜c.

Corn Oil

Smaller offerings from producers and a slightly better inquiry caused an advance in corn oil. Crude tanks at the mill were quoted at 4⅛c. pound at the close.

Cottonseed Oil

Recent advances in the commodity and stock markets lent strength to cottonseed oil which showed several advances this period. Crude tanks at the mill are now quoted as high as 4c. pound, an advance of ¾c. pound from last period.

Palm Kernel Oil

Palm kernel oil firmed up considerably this period. Stocks abroad are said to be light and there have been very few offers for shipment to this market recently. Current quotations are nominal.

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SOLUTIONIZER

(A device for producing soap and water solutions)

The Plug Type Solutionizer makes soap and water mixing as simple as drawing from a faucet. Manufacturers who supply this soap-saving, time-saving device to their customers will gain new business. For descriptive booklet write to

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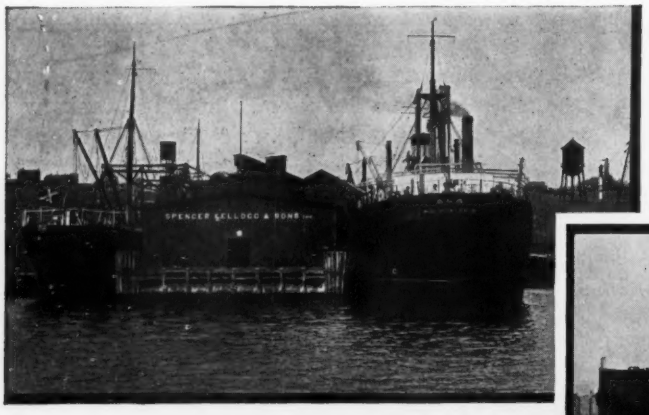
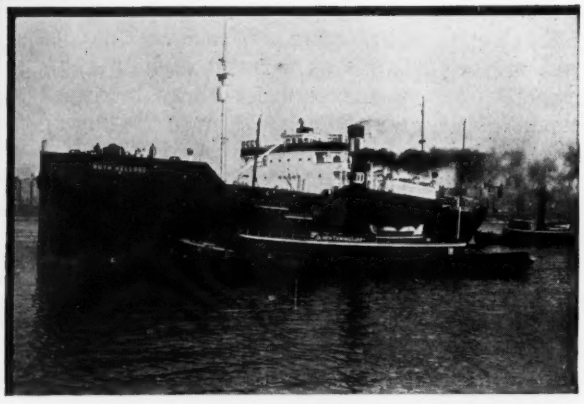


WILL SAVE YOU MONEY



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One of the fleet of Kellogg's ocean tank boats.

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MANILA (Crude) - CRYSTALITE - SILVER SEAL COCHIN - KOLINE (Edible) - HYDROGENATED

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RED OIL AND STEARIC ACID

Early in the period tank quotations on red oil were dropped to a basis of 6½c. pound, bringing the cost of the oil into adjustment with raw material prices which had declined some time previously. A similar adjustment was made in stearic acid, bringing quotations down to 8c. pound for double pressed material.

SOYA BEAN OIL

Reports of serious disturbances in China caused an advance in soya bean oil this period. If a war results between Japan and China it is probable that very little of the present crop will leave China. While this market does not depend on Chinese oil to nearly the extent it once did, nevertheless any interference with Chinese shipments would be certain to exert an indirect effect on local prices.

TALLOW

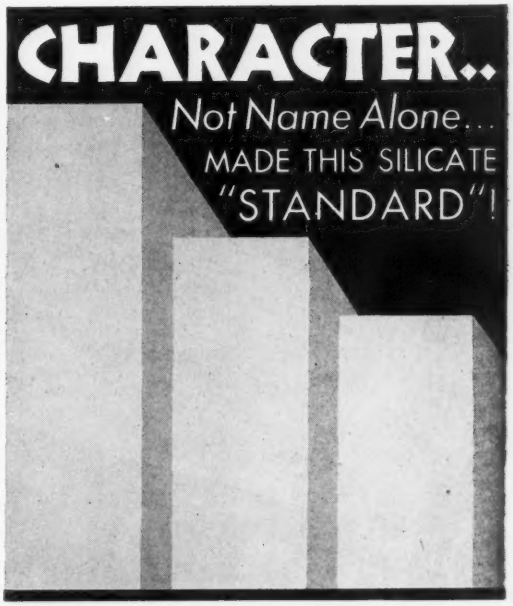
The strength shown in tallow was the leading feature of the oil and fat market this period. Apparently attracted by the unusually low quotation of 2⅞c. pound which prevailed on city extra tallow at the beginning of the period, soapmakers entered the market with substantial demands during the past month, bidding the price up to 3⅜c. pound at the close. Considerable business was said to have been closed at the latter figure. With this renewal of interest producers became less anxious to sell at current low levels and reduced their offerings. This show of strength had a sympathetic effect on the remainder of the market.

—o—

Mrs. Howard Kellogg, wife of Howard Kellogg, president of Spencer, Kellogg & Sons, died November 4th in the Buffalo General Hospital after a fall from her horse. Mrs. Kellogg was taking part in the annual "drag" hunt at the Lake Short Hunt Club when her mount stumbled and fell, its rider sustaining injuries which proved fatal. Services were held from the Kellogg Buffalo home November 6th. Mrs. Kellogg was the daughter of Mr. and Mrs. Whitney Gaylord Case of Buffalo. She had long been prominent in hunting circles and at the time of her death was president of the Buffalo Grenfell Association.

—o—

The new vegetable oil works of Lever Bros., Co., near Bromborough, England, are reported to be nearing completion. Railway facilities include twelve glass-roofed platforms accommodating 120-10 ton freight cars.



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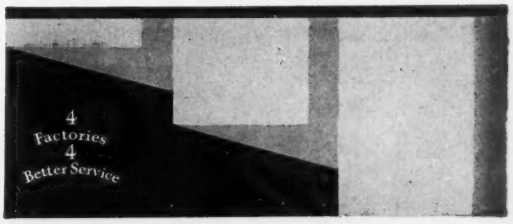

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Chemicals

Acetone, C. P., drums	lb.	.10	.11
Acid, Boric, bbls., 99½%	ton	135.00	162.50
Cresylic, 97% dk., drums	gal.	.47	.48
97-99%, pale, drums	gal.	.54	.58
Formic, 90%, tech	lb.	.10½	.12
Oxalic, bbls	lb.	.11	.11¼
Adeps Lanae, hydrous, bbls	lb.	.14	.15
Anhydrous, bbls	lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls	gal.	2.42	2.56
Complete Denat., No. 5, drums., ex.	gal.	.27	.29
Alum. potash lump	lb.	.03	.03¼
Ammonia Water, 26°, drums, wks.	lb.	.02¾	.03
Ammonium Carbonate, tech., bbls.	lb.	.10½	.11½
Bleaching Powder, drums	100 lb.	2.00	2.60
Borax, pd., cryst., bbls., kegs	ton	66.00	77.50
Carbon Tetrachloride, car lots	lb.	—	.06¼
L. C. L.	lb.	.06½	.07
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filler	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.12½	.15
Creosote Oil tanks	gal.	.13	.16
Formaldehyde, bbls.	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.11½	.12
Dynamite, drums	lb.	.09	.09½
Saponification, tanks	lb.	.06	.06½
Soaps, Lye, tanks	lb.	.05	.05½
Hexalin, drums	lb.	—	.60
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls.	per bbl.	1.70	2.20
Menthol, cases	lb.	3.50	3.75
Synthetic, tins	lb.	3.00	3.60
Mercury Bichloride, kegs	lb.	1.35	1.50
Naphthalene, ref. flakes, bbls.	lb.	.04	.05¼
Nitrobenzene (Myrbane) drums	lb.	.09½	.11
Paradichlorbenzene, bbls., kegs	lb.	.15	.23
Paraformaldehyde, kegs	lb.	.38	.39
Petrolatum, bbls. (as to color)	lb.	.02	.08
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls.	gal.	.55	.61
Potash, Caustic, drums	lb.	.06⅛	.06⅜
Flake	lb.	.07	.08
Potassium Bichromate, casks	lb.	.08¾	.09½
Pumice Stone, powd.	100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs.	bbl.	4.05	4.18
Grade K to N	bbl.	4.23	5.75
Grade WG and WW	bbl.	7.10	7.50
Wood	bbls.	3.70	3.90
Rotten Stone, pwd. bbls.	lb.	.02½	.04½
Silica, Ref., floated	ton	18.00	22.00
Soap, Mottled 40 lb. box	lb.	—	.12
Olive Castile, bars, powder	lb.	.12	.22
Powdered White, U. S. P.	lb.	.14	.16
Green, U. S. P.	lb.	.06½	.07½
Tallow Chips	lb.	.07½	.08
Whale Oil, bbls.	lb.	.04	.04½

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Soda Caustic, Cont., wks., sld...100 lb.	—	2.50
Flake .....lb.	—	2.90
Liquid, tanks .....lb.	—	2.20
Soda Sal., bbls.....100 lb.	1.00	1.15
Sodium Chloride (Salt).....ton	11.40	14.00
Sodium Fluoride, bbls.....lb.	.08¼	.09½
Sodium Hydrosulphite, bbls.....lb.	.22	.23
Sodium Silicate, 40 deg., drum, 100 lb.	.75	.80
Drums, 60 deg. wks.....100 lb.	—	1.65
In tanks, 15c. less per hundred, wks.		
Tar Acid Oils, 15-25%.....gal.	.24	.28
Trisodium phosphate, bbls. .....lb.	.03	.03½
Zinc Oxide, lead free.....lb.	.06½	.07
Zinc Stearate, bbls.....lb.	.22	.24

Oils—Fats—Greases

Castor, No. 1, bbls.....lb.	.11¾	.12
No. 3, bbls.....lb.	.11¼	.11½
Coconut, tanks, N. Y. .....lb.	.03½	.03⅝
Tanks, Pacific Coast .....lb.	.03¼	.03⅜
Tanks, Chicago .....lb.	.03⅞	.04
Cod, Newfoundland, bbls. .....gal.	—	.25
Copra, bulk, Coast .....lb.	.02	.0210
Corn, tanks, mills .....lb.	.04	.04⅛
Bbls., N. Y. .....lb.	—	Nom.
Cottonseed, crude, tanks, mill .....lb.	.03¾	.04
PSY .....lb.	—	.04⅞
Degras, Amer., bbls.....lb.	.03¼	.04
English, bbls. .....lb.	.04¼	.04½
German, bbls. .....lb.	.03½	.03¾
Neutral, bbls. .....lb.	.06¾	.08½
Greases, choice white, bbls., N. Y...lb.	.03¼	.04
Yellow .....lb.	.02¾	.03
House .....lb.	.02¾	.03
Lard, prime, steam, tierces .....lb.	.07¼	.07½
Compound tierces .....lb.	—	.07¼
Lard Oil,		
Extra, bbls. .....lb.	—	.08¼
Extra, No. 1, bbls. .....lb.	—	.08
No. 2, bbls. .....lb.	—	.07½
Linseed, raw, bbls., spot .....lb.	.0750	.0790
Tanks, raw .....lb.	—	.0690
Boiled, 5 bbls. lots .....lb.	—	.0870
Menhaden, Crude, tanks, Balt. ....gal.	—	.17½
Oleo Oil, No. 1, bbls., N. Y. .....lb.	—	.06¾
No. 2, bbls., N. Y. .....lb.	—	.06⅜
Olive, denatured, bbls., N. Y. ....gal.	.70	.72
Foots, bbls. N. Y. .....lb.	.04⅝	.04¾
Palm, Lagos, casks, spot .....lb.	.04⅛	.04¼
Shipments .....lb.	—	.03⅞
Niger casks, spot .....lb.	.03¾	.03⅞
Shipments .....lb.	—	.03½
Palm Kernel, casks, denatured ....lb.	.05¼	.05½
Tank cars, denatured .....lb.	—	.04¾
Peanut, domestic tanks, N. Y.....lb.	.04⅜	.04⅝
Red Oil, distilled, bbls. .....lb.	.07⅜	.07⅞
Saponified, bbls. .....lb.	.07⅜	.07⅞
Tanks .....lb.	—	.06½
Soya Bean, domestic tanks, N. Y...lb.	.04¾	0.5
Manchurian, pressed, N. Y. .....lb.	.07¼	.07½
Stearic Acid		
Double pressed .....lb.	.08	.08½
Triple pressed, bgs. .....lb.	.11	.11½
Stearine, oleo, bbls. .....lb.	.06¾	.07
Tallow, special, f. o. b. plant .....lb.	—	.03⅛
City, ex. loose, f. o. b. plant .....lb.	—	.03⅜
Tallow, oils, acidless, tanks, N. Y. ..lb.	—	.06½
Bbls., c/1, N. Y. .....lb.	.07	.07¼
Whale, nat. winter, bbls., N. Y. ..gal.	.56	.58
Blchd., winter, bbls., N. Y. ....gal.	.58	.60
Extra blchd., bbls., N. Y. .....gal.	.61	.63

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"STAUFFER BRAND" Caustic Soda can be supplied either solid or liquid, in drums or tank cars. It is uniform, pure and worth while using in your soap products. Send your next Caustic Soda inquiry to us.

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S-348 Blue Green G. C.
S-310 Chloro Green
S-315 Light Olive Green
S-341 Palm & Olive Green
S-343 Emerald Green P.O.
S-365 Lettuce Green
S-355 Rhodamine B Ex. (500% color)
S-323 Pink R.
S-278 Shell Pink
S-351 Pink Y
S-350 Rose
S-363 Scarlet
S-364 Red for Carbolic soaps
S-300 Uranine A (Fluorescene)
S-370 Chloro Opal
S-316 Lemon Yellow
S-318 Golden Yellow
S-319 Canary Yellow
S-320 Orange
S-271 Amber
S-339 Amber B. B.
S-342 Black
S-524 Blue (Ultramarine shade)
S-347 Royal Blue
S-333 Violet
S-255 Lilac
S-256 Heliotrope

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The colors listed at the left are fast to alkali, light heat and ageing.

We recommend them for COLD PROCESS, HALF-BOILED, BOILED SOAPS, POTASH SOAPS and SOAP BASES.

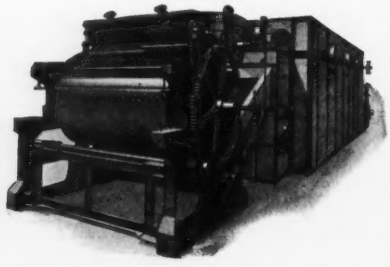
Send for free samples.

Send for complete price list.

PYLAM PRODUCTS COMPANY

Manufacturing Chemists—Importers—Exporters

53 PARK PLACE NEW YORK, N. Y.



THIN CHIPS!

This new Proctor Dryer produces Soap Chips of transparent thinness—exactly the kind now in popular demand for package laundry soap—also the chip that can be produced most efficiently in making cake toilet soap.

New throughout—new chilling rolls—new dryer, this machine not only produces the most satisfactory soap chip, but it excels in high capacity, saving of floor space, reduced steam consumption, low cost of operation. Write.

PROCTOR & SCHWARTZ, Inc.

PHILADELPHIA

Say you saw it in SOAP!

Essential Oils

Almond, Bitter, U. S. P.	lb.	2.25	2.50
Bitter, F. F. P. A.	lb.	2.65	2.80
Sweet, cans	lb.	.45	.47
Apricot, Kernel, cans	lb.	.26	.28
Anise, cans	lb.	—	—
U. S. P., cans	lb.	.42	.44
Bay, tins		1.90	2.00
Bergamot, coppers	lb.	1.80	2.00
Artificial	lb.	1.35	1.50
Birch Tar, rect., bot.	lb.	.45	.50
Crude, tins	lb.	.13	.14
Bois de Rose, Brazilian	lb.	.60	.65
Cayenne	lb.	1.15	1.30
Cade, cans	lb.	.26	.27
Cajuput, native, tins	lb.	.60	.65
Calamus, bot.	lb.	2.75	3.00
Camphor, Sassy, drums	lb.	.21	.23
White, drums	lb.	.16	.18
Cananga, native, tins	lb.	1.75	1.90
Rectified, tins	lb.	2.20	2.30
Caraway Seed	lb.	1.55	1.65
Cassia, Redistilled, U. S. P., cans	lb.	.97	1.10
Cedar Leaf, tins	lb.	.87	1.00
Cedar Wood, light, drums	lb.	.35	.41
Citronella, Java, drums	lb.	.57	.58
Citronella, Ceylon, drums	lb.	.36	.38
Cloves, U. S. P., cans	lb.	1.15	1.20
Eucalyptus, Austl., U. S. P., cans	lb.	.33	.35
Fennel, U. S. P., tins	lb.	1.00	1.10
Geranium, African, cans	lb.	4.00	4.50
Bourbon, tins	lb.	3.80	4.50
Hemlock, tins	lb.	.90	.95
Lavender, U. S. P., tins	lb.	1.95	3.50
Spike, Spanish, cans	lb.	.55	.75
Lemon, Ital., U. S. P.		.90	1.20
Lemongrass, native, cans	lb.	.44	.45
Linaloe, Mex., cases	lb.	1.80	1.95
Neroli, Artificial	lb.	10.00	20.00
Nutmeg, U. S. P., tins	lb.	1.20	1.30
Orange, Sweet, W. Ind., tins	lb.	1.75	1.90
Italian cop.	lb.	1.85	2.30
Distilled	lb.	.80	.90
Origanum, cans, tech.	lb.	.25	.40
Patchouli	lb.	3.75	5.50
Pennyroyal, dom.	lb.	1.55	1.60
Imported	lb.	1.10	1.15
Peppermint, nat. cases	lb.	1.45	1.70
Redis., U. S. P., cases	lb.	1.65	1.90
Petit Grain, S. A., tins	lb.	1.10	1.20
Pine Needle, Siberian	lb.	.60	.63
Rose, Natural	oz.	9.00	14.00
Artificial	oz.	2.00	2.75
Rosemary, U. S. P., drums	lb.	.40	.45
Tech., lb. tins	lb.	.33	.35
Sandalwood, E. Ind., U. S. P.	lb.	7.50	8.00
Sassafras, U. S. P.	lb.	1.00	1.20
Artificial	lb.	.27	.29
Spearmint, U. S. P.	lb.	1.40	1.55
Thyme, red, U. S. P.	lb.	.50	.65
White, U. S. P.	lb.	.85	.90
Vetivert, Bourbon	lb.	4.50	5.00
Java	lb.	16.00	20.00
Ylang Ylang, Bourbon	lb.	5.15	6.50

ESSENTIAL OILS
AROMATIC CHEMICALS

CASSIE S. N.

A powerful and tenacious oil of particular interest to soapmakers: remarkably effective for violet odors and bouquet types.

OAK MOSS RESIN

An outstanding raw material for the perfuming of soaps.

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The original Amyl Cinnamic Aldehyde.

LAVENDER OIL

Extremely low prices, finest qualities.

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PILAR FRERES
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Confidence
in your
Silicate Purchase

WHEN you buy silicate of soda you don't taste it, nor yet feel it; you don't buy it by smell nor sight. You buy silicate by experience and confidence.

The "measuring rod" has been applied to P. Q. Silicate from generation to generation of soap makers. It has proved itself worthy to be the standard of the industry. So, uniform quality, conveniently available from eight plants, and a source of technical advice with a century's background, create a confidence in P. Q. as Silicate Headquarters.

1831 PQ 1931

Get in touch with us now about your 1932 requirements.

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Sell and ship in . . . STEEL

1 TO 65 GALLON SIZES

the Shipping and Pouring Pails

If you want to discover the economy and advantage of shipping in steel any product, liquid, dry or solid, allow us to discuss your requirements with you.

As the manufacturer of the most complete line of plain and lithographed steel shipping containers, we are confident of our ability to submit a package adaptable to your product. And our Engineering and Traffic Departments will be glad to help.

Above is shown one of the most widely used style of pail in the paint, oil and chemical industries and the two different covers with which it may be equipped. Write for our set of catalogues so that you will immediately know what we can offer your product.

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Eastern Offices: 39 Cortlandt St.
NEW YORK

Sales Offices in Chief Cities

Aromatic Chemicals

Acetophenone, C. P.	lb.	$3.00	$4.25
Amyl Cinnamic Aldehyde	lb.	3.75	4.25
Anethol	lb.	1.40	1.60
Benzaldehyde, tech.	lb.	.60	.65
U. S. P.	lb.	1.35	1.45
Benzyl, Acetate	lb.	.75	1.10
Alcohol	lb.	1.00	1.40
Citral	lb.	2.75	3.35
Citronellal	lb.	1.50	2.00
Citronellol	lb.	2.60	4.50
Citronellyl Acetate	lb.	5.00	8.00
Coumarin	lb.	3.60	4.00
Diphenyl oxide	lb.	1.15	1.25
Eucalyptol, U. S. P.	lb.	.62	.80
Eugenol, U. S. P.	lb.	3.00	3.75
Geraniol, Domestic	lb.	1.65	2.00
Imported	lb.	2.00	2.35
Geranyl Acetate	lb.	2.50	3.50
Heliotropin, dom.	lb.	1.90	2.00
Imported	lb.	2.25	2.30
Hydroxycitronellal	lb.	4.00	6.00
Indol, C. P.	oz.	2.50	5.00
Ionone	lb.	4.00	6.50
Iso-Eugenol	lb.	4.00	5.50
Linalool	lb.	2.10	3.50
Linalyl Acetate	lb.	3.00	3.75
Menthol	lb.	3.50	4.00
Methyl Acetophenone	lb.	2.10	2.90
Anthranilate	lb.	2.20	2.60
Paracresol	lb.	8.00	9.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	6.50	7.25
Ketone	lb.	6.50	7.50
Moskene	lb.	5.40	5.90
Xylene	lb.	2.50	3.00
Phenylacetaldehyde	lb.	$4.00	$7.00
Phenylacetic Acid, 1 lb., bot.	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.	lb.	4.15	4.50
Rhodinol	lb.	5.50	12.50
Safrol	lb.	.29	.31
Terpineol, C. P., 1,000 lb. drs.	lb.	.30	.33
Cans	lb.	.33	.36
Terpinyl Acetate, 25 lb. cans	lb.	.80	1.15
Thymol, U. S. P.	lb.	1.80	2.00
Vanillin, U. S. P.	lb.	4.50	5.75
Yara Yara	lb.	1.60	2.50
Insect powder, bbls.	lb.	.18	.20
Concentrated Extract	gal.	1.50	1.60
Gums—			
Arabic, Amb. Sts.	lb.	.08	.08½
White, powdered	lb.	.15	.17
Karaya, powdered	lb.	.19	.20
Tragacanth, Aleppo, No. 1	lb.	1.25	1.30
Sorts	lb.	.25	.50
Turkish, No. 1	lb.	.80	.85
Waxes—			
Bayberry, bgs.	lb.	.16	.20
Bees, white	lb.	.34	.38
African, bgs.	lb.	.19	.20
Refined, yel.	lb.	.25	.30
Candelilla, bgs.	lb.	.13	.14
Carnauba, No. 1	lb.	.32	.33
No. 2, Yel.	lb.	—	Nom.
No. 3, Chalky	lb.	.11	.12
Japan, cases	lb.	.07¾	.08
Paraffin, ref. 125-130	lb.	.03⅜	.04⅛

Water Soluble Perfumes
for Theatre Sprays

LILAC W. S. CARNATION W. S. FRESIA W. S.
ROSE W. S. JOCKEY CLUB W. S. and others

These oils are clearly soluble in water
You will need only four ounces to one gallon

Also Special Odors for

Cake Soaps --- Liquid Soaps --- Disinfectants --- Para Products

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POLAK'S FRUTAL WORKS, Inc.

350 WEST 31ST STREET NEW YORK CITY

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Say you saw it in SOAP!

IN KRANICH SOAPS

there is always positive assurance of uniform quality and dependable working results.

Liquid Soap Base

Cocoanut Oil, 60% anhydrous. Standard colors.

Liquid Toilet Soap

Cocoanut Oil Standard. Colored and perfumed, ready for use.

Cleaning Soap

Soft Potash Vegetable Oil. Light and Dark Amber. 40% anhydrous.

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Concentrated Liquid, 22% anhydrous. Pine, Sassafras or odorless.

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Hard Green, 2 lb. Bar or Soft Potash Vegetable Oil Soap.

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Strictly U. S. P. Bars, Cakes, Powdered, Coarse Ground, Granulated.

Coco-Castile Soap

50% Cocoanut Oil 50% Olive Oil Bars, Powdered, Granulated.

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U. S. P. IX—U. S. P. X—Surgical Green. Standard quality.

KRANICH SERVICE assures attention to requirements, careful handling and prompt shipment of orders.

KRANICH SOAP CO.

54 Richards St. Brooklyn, N. Y.

BOBRICK'S
No. 31
PORCELAIN-ON-STEEL
DISPENSER
FOR
POWDERED SOAP

Appearance and finish will appeal to any buyer for use in all washrooms.

All parts enclosed and locked. One piece construction. Easy to fill. Large capacity. Foolproof.

No. 25
Each operation agitates powder preventing soap from packing in the dispenser.

Patented and Guaranteed by

Bobrick Manufacturing Corp.

117 Garey Street
Los Angeles, Calif.

215 Fourth Avenue
New York City

Established 1906

Say you saw it in SOAP!

Whales and Whaling

A recent paper by Dr. Johan Hjort, Professor in the University of Kristiania, Oslo, Norway, and internationally known authority on whaling, contains much information of economic interest to users of whale oil. The paper was read at the 1931 Canadian Biological Conference by Copley Amory, in the absence of Dr. Hjort. It is the opinion of the author that the whaling industry cannot continue to produce at its present rate over an extended period. He believes that a continuation of the present tremendous annual whale catch would result in such a depletion of the stock of whales that an automatic check to production would be provided. It would not pay to undergo the heavy expense of sending the whaling fleet to the Antarctic for anything less than a capacity catch. Thus production would be stopped almost completely for a time until the stock had been replenished. The remarkable rapid growth of whales, according to Dr. Hjort, is one of the factors which will protect them from extinction. The female blue whale has a calf every second year, which in six months attains a growth of approximately fifty feet. As whales are sexually mature at the age of two, it is apparent that it requires only a short time for replenishment of depleted stock.

Dr. Hjort's conclusions are particularly interesting in view of the decision of the operators not to send the whaling fleet out this year. Record breaking production in the last few years has flooded the oil markets of the world with such a surplus of whale oil that prices have been beaten down to a point where the profit from immediate future operations is questionable. Producers have taken as a way out the complete suspension of operations this year. Their only other two courses, as Dr. Hjort points out, are either to operate at a loss or to develop international co-operation to a point where it will be possible for the nations to agree to limitation of the whale oil catch to the most favorable equilibrium.

—o—

Burgess-Parr Co., laboratory apparatus, moved November 1st from 111 West Monroe street, Chicago, to 202 East 44th street, New York.

—o—

Japan Soap Industry

(*From Page* 34)

changing manufacturers' marketing policies so that there can be complete stabilization of prices are now being sought. Soap consumption is steadily on the increase and a continuation of this expansion is looked for. The industry is working in harmony to solve its common problems and apparently has full faith that they will be solved.

Established 1898

We recommend the following proven specialties for perfuming soaps, shampoos, etc.

	Per lb.
LAVENDER BOUQUET S. F.	$4.00
NARCISSUS S. F.	5.00
NEW MOWN HAY S. F.	3.75
PINE BOUQUET F.	2.00
MOSS ROSE	4.00

These oils will perfume your product attractively and at low cost. Ask for new price list.

EVERGREEN CHEMICAL CO., INC.

160 FIFTH AVENUE NEW YORK

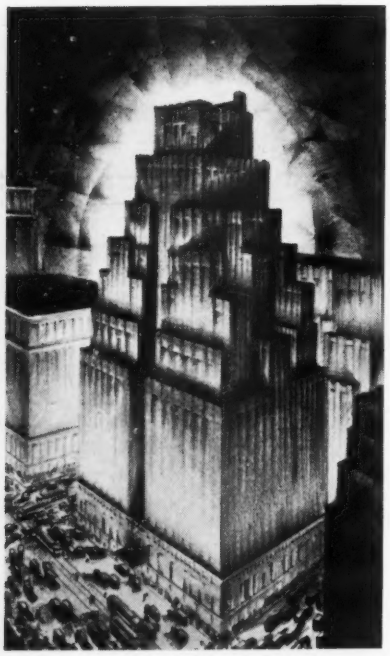
Say you saw it in SOAP!

Headquarters for the Convention of the Insecticide and Disinfectant M'f'rs Association

●

Hotel New Yorker has been selected as the headquarters for the convention of the Insecticide and Disinfectant Manufacturers Association when it meets in New York on December 7, 8 and 9.

Be sure to stop at this great new hotel. Enjoy the comforts and conveniences that have made this hotel an outstanding success and the most popular hotel in all New York.



The New Yorker's service and hospitality are planned deliberately for those who are critical. And just as honestly-made merchandise always is the best investment, so does the New Yorker give you the most for the money.

Every one of its 2500 rooms has Stromberg-Carlson radio (no extra charge); both tub and shower, Servidor and circulating ice water. It's conveniently located, too—private entrance to the Pennsylvania station and the subways. Yet 85 per cent of our rooms are priced from $3.50 to $5.00 a day.

●

HOTEL NEW YORKER

34th STREET AT 8th AVENUE, NEW YORK CITY

RALPH HITZ, Managing Director

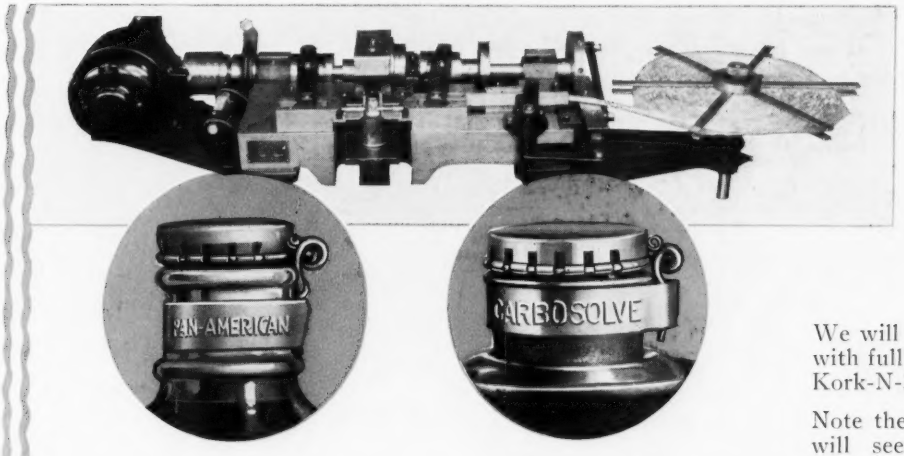
Say you saw it in SOAP!

INSECTICIDE AND DISINFECTANT SECTION

A Section of SOAP

Vol. VII, No. 11 November, 1931

Tamper proofing made simple with new Williams *Semi-automatic* BANDING MACHINE



Tamper proof banding material, stamped with your name if you desire, feeds continuously from reel. Machine may be operated by inexperienced labor.

If your problem is one of securing positive protection against tampering with the contents of your bottle or can, then this new machine is the answer. We guarantee absolute satisfaction.

The use of Kork-N-Seal and the new Tamper Proof Band, applied with this low cost semi-automatic band machine, gives you a 100 per cent tamper proof package.

The Williams Kork-N-Seal and Tamper Proof Band are absolute protection against imitation of the package and substitution, adulteration, or other forms of tampering with its contents, because they are the only parts of the package which can not be duplicated.

This fact, combined with our well established policy of refusing to supply Kork-N-Seals for use on packages imitating those already under Kork-N-Seal, provides a worth while protection available in no other way.

We will be glad to supply you with full details of this unusual Kork-N-Seal service.

Note the illustrations and you will see that this complete closure service as developed and engineered by the Williams Sealing Corporation not only gives you a 100 per cent tamper proof package, but it adds considerable sales value by giving you a most business-like and authoritative looking package.

Williams Sealing Corporation
Decatur, Illinois

Williams
KORK-N-SEAL
THE CAP WITH THE LITTLE LEVER

EARN THE CHOICEST SALES POSITIONS

DEALERS everywhere recognize the ready salability of Insecticides, Deodorants, Soaps, Chemicals, Polishes, and Allied Products attractively packaged in cans convenient to use. Better packages always get the preferred positions in dealers windows and inside displays.

And attractive, colorful packages, displayed where consumers buy, are tremendous sales stimulators.

Investigate the advantages of the many different Continental cans for these products.

And Continental specialists in making new designs or modernizing old ones are at your service.

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Say you saw it in SOAP!

"KILLING POWER—THAT'S THE THING"

YOUR PYRETHRUM DOLLAR

Your Pyrethrum dollar buys more these days than for a good many years. Even good Pyrethrum products are very low in price.

This suggests that it is thrice unwise to invest your money in material about which there is any question as to quality.

We have always maintained that the only good Pyrethrum is that which kills insects—and keeps them dead.

Regardless of how much confusion and difference of opinion may exist this fundamental fact stands out in its simple clarity.

The efforts of this house are devoted to supplying *good Pyrethrum* products consistently and therefore dependably.

That our methods of test and control are sound can be shown by any reasonable comparison you may care to make.

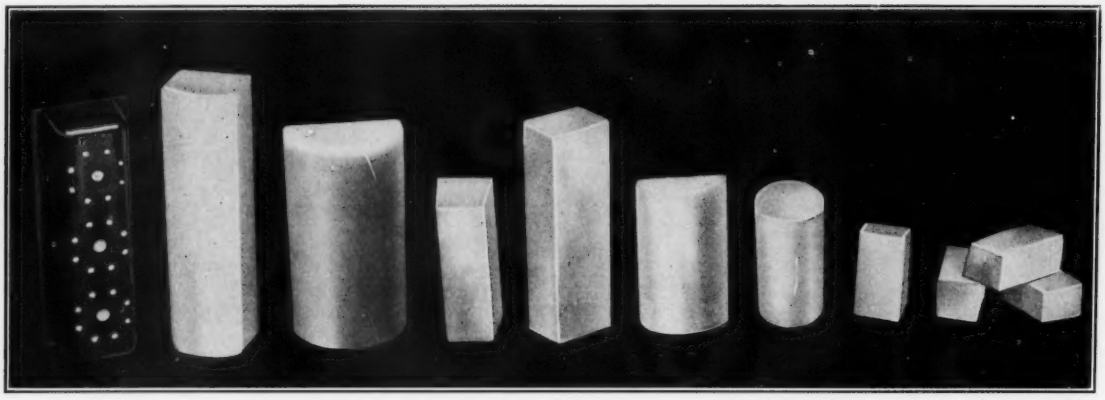
We manufacture a full line of Pyrethrum products but have only one grade, one standard, and one quality—the very best that money can buy.

JOHN POWELL & CO., INC.

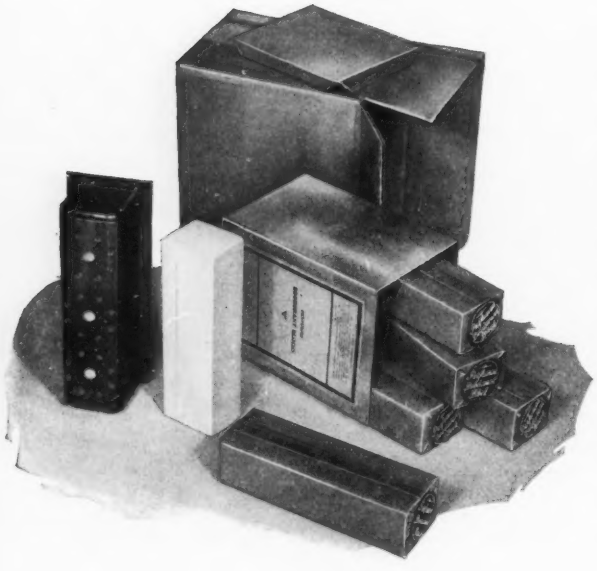
Specialists in Pyrethrum Products

114 E. 32nd St. New York, N. Y.

Say you saw it in SOAP!



AT LAST—A Good Deodorant Block That Will Actually Last Longer



Set of 6—24 ounce Blocks properly packed in tin. Each block sealed to prevent premature evaporation.

FOR efficient deodorizing . . . Alpine offers a new type of pressed block formed under 20 tons pressure. This process produces a block that is absolutely solid, containing no air holes to increase evaporation. Pound for pound Alpine's pressed blocks actually last twice as long as the average block. Having a smaller surface exposed, they of course evaporate more slowly, and so outlast molded or loosely pressed blocks.

Then, too, the perfume used in Alpine blocks is of much higher quality than is usually found even in the best of competing products. Alpine blocks disseminate a fragrant perfume as long as even the smallest portion of the block is left.

Send for a trial set of these blocks and investigate their superior qualities. Private brand label on any of our products may be had for the asking.

ALPINE CHEMICAL COMPANY

FULD BROS.

Manufacturers of Sanitary Products for the Jobbing Trade

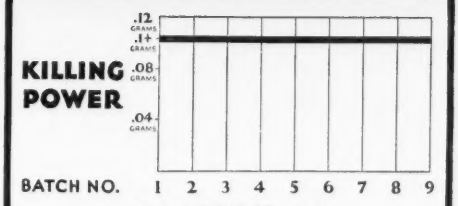
659 W. Pratt St. **BALTIMORE, MD.**

Say you saw it in SOAP!

Millions OF GALLONS

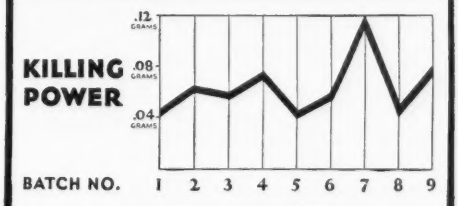
of Finished Insecticide Were Made From PYROCIDE No. 20 This Year

KILLING POWER
of Pyrocide No. 20 compared with unstandardized Pyrethrum extracts



PYROCIDE No. 20

When you use Pyrocide No. 20 as the base for your fly spray or household insecticide, using one part Pyrocide in 20 parts light mineral oil, the pyrethrin content is stabilized at .1+ grams per 100 cc.—every batch the same—because the pyrethrin content of Pyrocide No. 20 is standardized.



NOT STANDARDIZED
(Pyrethrin Content Fluctuates)

When you use pyrethrum concentrate made by direct extraction (and not standardized) the pyrethrin content of each batch of fly spray or household insecticide will vary, as widely as from .04 grams to .12 grams per 100 cc.

MILLIONS of gallons—there must be a reason for such a tremendous acceptance. And here it is. Pyrocide No. 20 is the *only* standardized concentrated extract with a guaranteed, absolutely stabilized pyrethrin content. And this fact saves you money. You can guarantee the toxic strength of your finished product—and you lower the cost of your fly spray.

And now—due to our new laboratories established in Japan, we can buy flowers of a higher pyrethrin content at the same price. So we have stepped up Pyrocide No. 20 to contain 20% more active principle—AT NO ADDITIONAL COST TO YOU. Pyrocide No. 20 is now guaranteed to contain 2.15 grams of pyrethrins per 100 cc. Each gallon contains all of the active principle from 20 pounds of pyrethrum flowers having a pyrethrin content of .90% pyrethrins.

Don't be fooled by imitators of Pyrocide No. 20. Insist on standardization. *Watch the color.* Pyrocide No. 20 makes a yellow insecticide—the true color of proper direct extraction.

Pyrocide No. 20 is sold only to insecticide manufacturers and is shipped in steel drums of 5, 10, 15, 30 and 53 gallons. Warehouse stocks are carried at New York, Los Angeles, Minneapolis and many foreign points. For your own percolation, we can also supply you with pyrethrum flowers with known pyrethrin content in whole, ground and powdered form.

McLAUGHLIN GORMLEY KING COMPANY
1715 Fifth Street SE., Minneapolis • *Pyrethrum Specialists Since 1901*

PYROCIDE No. 20
STANDARDIZED EXTRACT OF PYRETHRUM FLOWERS

Say you saw it in SOAP!

paratints

odor PLUS color

Ideal for

BATH SALTS
PARA BLOCKS

Eleven odor and color combinations in two price ranges

SERIES A $2.00 lb.
SERIES B $4.50 lb.

Send for samples and descriptive literature

Givaudan-Delawanna, Inc.

80 FIFTH AVENUE, NEW YORK, N. Y.

Say you saw it in SOAP!

Baird's

Certified Coal-Tar Disinfectants

are known and used throughout the world because of their quality, dependability and efficiency. They are supplied only in concentrated form, dilute readily with water to form rich, milky emulsions, which do not separate on standing, and have a good clean odor of tar. Each batch is tested for germicidal strength.

Cresol Comp. U. S. P.

also known as Liquor Cresolis Compositus, U. S. P., is made in exact accordance with the specifications of the U. S. Pharmacopoeia. Phenol coefficient 2½ to 3. Dilutes with water to form clear, amber-colored solutions. Largely used by the medical profession, hospitals and veterinarians.

Crestall Compound

is similar in composition, appearance and odor to Cresol Compound, U. S. P., but prepared from refined cresylic acid as a base. Approximately twice as strong as the U. S. P. product, and very effective in preventing the spread of animal diseases.

Mosquito Larvaecide

A coal-tar product employed for killing mosquito larvae. Effective in dilutions of 20,000 to 40,000 to one. Superior to petroleum oil, as it is not affected by rainfall or wind and does not involve fire hazard.

Pes-Tox Insecticide

of the pyrethrum type, pleasantly scented. Quickly kills practically every type of crawling, flying and hopping insect. Light lemon color. Especially effective when used in the form of a spray.

Pine Oil Disinfectant

A fragrant pine product, made from pure steam-distilled pine oil according to the formula of the Hygienic Laboratory of the U. S. Public Health Service. Mixes freely with water to form good milk emulsions, with pleasant pine odor. Free from mineral oil or other adulteration.

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Holbrook, Mass. **St. Louis, Mo.**

New York City and New Jersey Representatives:

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Telephone WOrth 2—3143.

"That's the BRAND I had before!

"It worked so well . . I'm back for more!"

It's the Consumer speaking! . . and that CAN is the reminder of a Quality product he has used . . and liked.

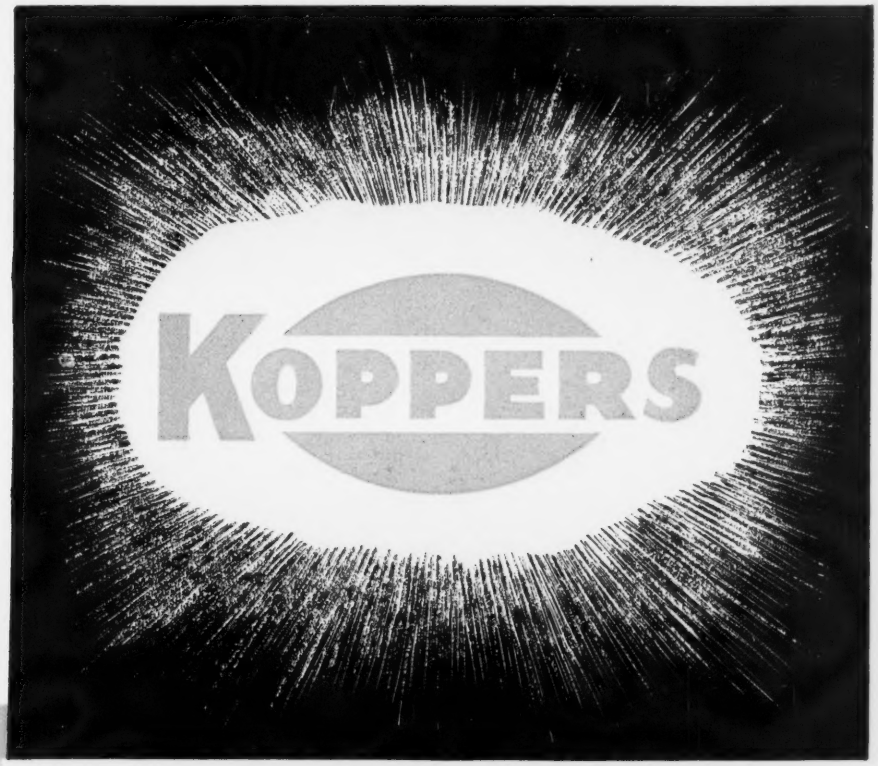
That CAN spoke well of its contents and *proved* their value by a first sale.

Today's trade *rises* to fine Packaging. It sets a mark of product value.

It may be time to re-design . . the Containers of your leading line! We are here to do *just that.*

METAL PACKAGE CORPORATION
THE FISCHER CAN COMPANY DIVISION
Hamilton, Ohio
PLANTS: New York City Baltimore Brooklyn

Say you saw it in SOAP!



Coal Tar Disinfectants

Uniform, Reliable, Standardized

Here are five interesting facts for buyers who seek reliable disinfectants, technically compounded:

1. We produce our own raw materials, eliminating serious market fluctuations.
2. Our modern plants and laboratory facilities enable us to meet the most exacting specifications.
3. All our tar acids and disinfectant oils are mechanically chilled, eliminating naphthalene and other sediments.
4. Our Cresylic Acids are free from gassy odors and prepared for technical cresol compounds.
5. Our Standard Cresol U.S.P. is better quality than the U.S. Pharmacopoeia demands.

No order is too small or too large to be assured of our prompt and careful attention.

DISINFECTANTS

COAL TAR DISINFECTANT
(Coefficients 2-20)

TAR ACID OILS

CRESOL COMPOUNDS
(Liquor Cresolis Compositus U.S.P. Cresol Compound Technical)

ANIMAL DIPS

CATTLE SPRAYS

CRESOL U. S. P.

CRESYLIC ACID

LIGHT OIL DISTILLATES
(Benzol, Toluol, Xylol, Solvent Naphtha)

WOOD PRESERVATIVES

AGRICULTURAL CHEMICALS
(Ammonium Sulphate Flotation Sulphurs)

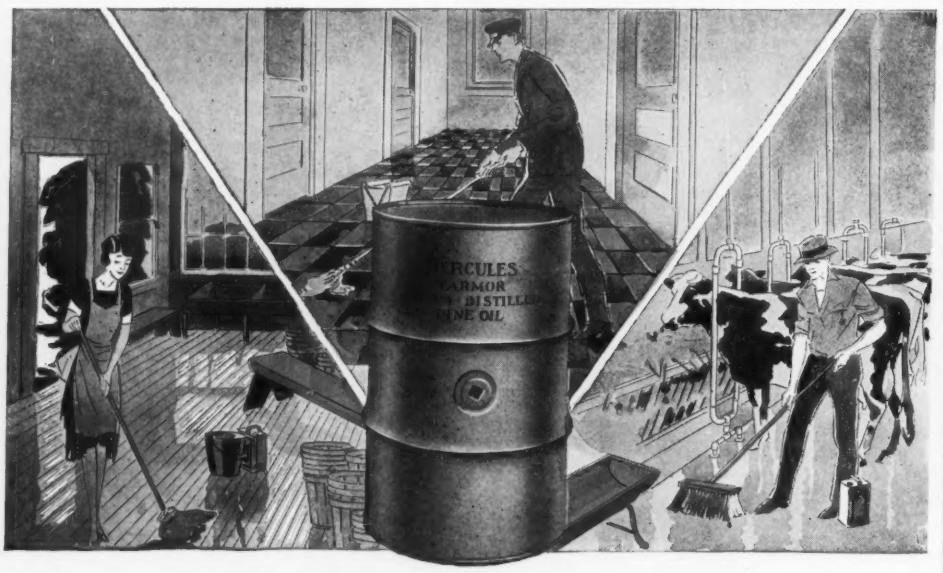
NAPHTHALENE
(Crude and Refined... All Kinds ... Moth Balls... Flakes)

These products can be bought by the can or carload... put up as your own brand... or shipped in bulk.

KOPPERS PRODUCTS COMPANY
PITTSBURGH
PROVIDENCE BIRMINGHAM CHICAGO
274 BRANNAN STREET, SAN FRANCISCO

THE WHITE TAR COMPANY
KEARNY NEW JERSEY
Subsidiaries of The Koppers Company

Say you saw it in SOAP!



HERCULES PINE OIL

Disinfectant—Deodorant—Insecticide

HERCULES Steam-distilled Pine Oil in miscible form is an effective germicide and disinfectant for use in both public and private buildings.

It leaves a clean, sweet, piney odor. As a spray it repels or destroys flies, mosquitoes, and other insects. When diluted it has value as a detergent for scrubbing floors and walls.

Write us for further details and prices.

Naval Stores Department

HERCULES POWDER COMPANY
INCORPORATED

961 Market Street, Wilmington, Delaware

Largest producers of pine oil, wood rosin and steam-distilled wood turpentine.

HERCULES POWDER COMPANY, 961 Market Street, Wilmington, Delaware
Please send me a test sample of Hercules Steam-distilled Pine Oil.

Name.....Company.....

Street.....City.....State.....

What is the Art of

PERFUMING FLY SPRAYS?

The answer is—Felton's newest fly spray perfume oils.

LILAC No. 45

BOUQUET No. 78

NEWMON

ROSAS

YOSOY

This perfect selection will allow you to perfume your fly spray beautifully at a minimum cost.

It will be worth your while to test one of these perfume oils.

FELTON CHEMICAL COMPANY, Inc.

Chicago, Ill., Office
1200 North Ashland Ave.

Executive Offices and Factory
599 Johnson Ave., Brooklyn, N. Y.

Manufacturers of

Aromatic Chemicals, Natural Isolates, Perfume Oils, Artificial Flower and Flavor Oils

Say you saw it in SOAP!

van Ameringen-

Whatever Helps a Little, Helps a Lot

Are you making a product that ought to be perfumed, or that would sell better if it were?

Does your product have an unpleasant odor that nourishes sales resistance?

These are not *out-of-the-ordinary* conditions. We meet them daily.

If you have a problem in which perfuming may help, consult us. Even if you haven't thought of it as a problem, show us your product and let us see if we can improve matters.

Perhaps our effort will point the way to increased sales. These are times when anything that helps at all, helps a lot.

In this sort of work, there is no obligation either way. We ask nothing of you but a willingness to buy our perfume materials if they do a good job at a fair cost.

We are not always successful, but our average of successes is pretty high. We do not hesitate to tell you the truth about what our products can or cannot do for you.

—if we have the opportunity.

—and that's up to you.

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
619 Clark Avenue, St. Louis
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

Say you saw it in SOAP!

Haebler, Inc.

Better Odors Often Make Better Sales

van Ameringen-Haebler, Inc., is an organization of about sixty people. We maintain several offices, and a factory. We import and manufacture perfume materials for use in

Soap	Disinfectants
Shampoos	Insecticides
Liquid Soap	Fungicides
Perfume	Paint
Face Powder	Urinal Blocks
Cosmetics	Moth Repellants
Hand Soap	Metal Polish
Soap Powder	Leather
Ink	Fabrics
Paste	Hair Preparations
Ointments	Antiseptics

and many other materials

We invite a frank statement of the conditions which our odors are expected to overcome. If possible send us a sample of your product *unperfumed*. We will be glad to work on it and return our suggestions and quotations.

van Ameringen-Haebler, Inc.

Aromatic Essentials

315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
619 Clark Avenue, St. Louis
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

Say you saw it in SOAP!

Baird's Certified Disinfectants

of coal-tar are so named because every lot is tested and certified to by independent analysts, thus insuring to the buyer a guarantee of quality and strength. A copy of the bacteriological certificate will be furnished whenever requested.

The name BAIRD'S on a container of disinfectant means not only that it is a certified product, but one which represents over a quarter of a century of manufacturing experience and technical skill . . . insuring uniformity of composition . . . unformity of quality . . . uniformity of result. BAIRD'S Certified Disinfectants dilute readily with water to form rich, milky emulsions.

Whether your disinfectant requirements are large or small, or whether the coefficient is two or twenty or any intermediate strength, let us figure with you. Samples will be submitted for your inspection, and we will be glad to give you the benefit of our many years of experience as specialists in this line.

Cresylic Acid Animal Dips Household Insecticides

Made Right—Priced Right

BAIRD & MCGUIRE, INC.

Manufacturers of

Baird's Certified Disinfectants and Quality Sanitary Products

HOLBROOK, MASS. ST. LOUIS, MO.

New York Representatives
THE EASTERN STATES SUPPLY COMPANY
136 Liberty Street Phone: WOrth 2—3143

Warehouse stocks at convenient points throughout the country.

Say you saw it in SOAP!

INSECTICIDE AND DISINFECTANT SECTION

A Department of SOAP

SOAP is official publication of *The Insecticide and Disinfectant Manufacturers Association.*
Harry W. Cole, Holbrook, Mass., Secretary.

The Eighteenth Annual Meeting

THE Eighteenth Annual Meeting of the Insecticide & Disinfectant Manufacturers Association will be held in New York at The New Yorker Hotel on December 7 and 8. The meeting this year will consist of a two-day session as compared with three in previous years. All other features will remain as before. There will be group luncheons on the two days, and the convention will be closed with the annual informal banquet on the evening of the second day. Sessions of the meeting will be closed except to members, although the luncheons and banquet will be open to all those in the industry or the supplying industries who desire to attend.

The meeting this year will find the insecticide and disinfectant manufacturers facing several situations which are as serious as any which have come before the industry since the formation of the Association in 1914. The importance of the gathering next month was recognized at the last meeting of the Board of Governors of the Association and the program for the meeting will be shaped accordingly. That it is the wish of the officers and the Board that every active and associate member make all possible efforts to attend, goes without saying. This has been emphasized by the Secretary in his communications to the membership.

At this time, we urge every member to attend. You cannot fail to return home after the meeting without something of value, something which can help your business under present circumstances. The days are Monday and Tuesday, December 7 and 8! The place,—The New Yorker in New York.

—o—

Retaliation

SO much has been talked about price cutting in the sale of bulk insecticides and disinfectants, and it has become such a continuous and tiresome story in these trades, that everybody seems to have about given the whole situation up as a hopeless mess. The first cut has been followed by a whole series of onslaughts which have left prices flat on their backs and gasping for breath. The original cut was to get certain business here or there. The second was to take a "slam" at the first cutter and get the business back. Thus it has been right down the line. This one has cursed that one, and that one has cursed this one back. We have heard the old refrain,—"we can stand it as long as they can." It has been a game of slashing in all directions with consumers standing on the sidelines applauding the play.

There may be some excuse where a price is cut sanely in keen competition to secure a certain piece of business, although we must admit that it does not take a great deal in the way of brains to sell when your price is lower than that of everybody else. When a loser in a certain piece of competitive business, however, picks out one of the best accounts of the other house and

(*Turn to Page* 113)

The Insecticide *and* Disinfectant Manufacturers Association

OFFICERS

President.....Dr. Robert C. White
Robert C. White Co., Philadelphia

1st Vice-President.....Evans E. A. Stone
William Peterman, Inc., New York

2nd Vice-President.....Peter Dougan
Merck & Co., Rahway, N. J.

Treasurer.....John Powell
John Powell & Co., New York

Secretary.....Harry W. Cole
Baird & McGuire, Holbrook, Mass.

Board of Governors

W. J. Andree.....Sinclair Refining Co., New York
C. C. Baird.....Baird & McGuire, Holbrook, Mass.
S. H. Bell.....American Tar Products Co., Pittsburgh
J. L. Brenn..Huntington Laboratories, Huntington, Ind.
F. A. Hoyt.....Frederick Disinfectant Co., Atlanta
H. W. Hamilton.....Koppers Products Co., Pittsburgh
M. M. Marcuse.....West Disinfecting Co., New York
C. P. McCormick.....McCormick & Co., Baltimore
Dr. C. H. Peet.....Rohm & Haas Co., Philadelphia
W. J. Zick.....Stanco, Inc., New York

Membership

Active—Open to manufacturers and wholesale distributors of disinfectants, germicides, deodorants, insecticides, liquid soaps, polishes, and allied products. Dues—$75.00 per year.

Associate—Open to firms supplying raw materials, containers, equipment, etc., to the membership. Dues—$50.00 per year.

For further details, communicate with

INSECTICIDE & DISINFECTANT MANUFACTURERS ASSOCIATION
Harry W. Cole, Secretary
HOLBROOK MASS.

Notes of the Trade

Huntington Laboratories have just issued a new 16 page catalog, featuring the method in which their sanitary products are laboratory controlled. The booklet is an unusual printing job and was worked out by I. E. Alexander of Alexander & Brandt, Chicago. Mr. Alexander is the son of Benjamin Alexander of Huntington Laboratories.

—o—

British manufacturers of coaltar and American consumers appeared before the United States Tariff Commission at a meeting in Washington, October 30th, to oppose the imposition of any duty on imported creosote oil. The hearing was held in connection with the senate investigation into creosote oil production costs. Domestic producers were not represented. Creosote oil is now admitted duty-free.

—o—

Chemical Specialties Co., Los Angeles, has moved to 629 East Vernon avenue from its previous headquarters at 836 East Jefferson boulevard. G. Ernest Martens is proprietor of the company. The telephone number remains unchanged, Adams 7610.

—o—

Zonite Products Corp., Ltd., will construct a plant at Ste. Therese, near Montreal, Canada, where manufacturing operations will be consolidated for Zonite and its subsidiaries, Forhan's, Ltd., Larvex Corp., Ltd., and A. C. Barnes Co., Ltd. The plant is expected to be completed by next April.

—o—

Preparations such as lysol and iodine can be sold in the state of Washington only by licensed pharmacists, according to a decision by Lester T. Parker, assistant attorney general. The decision rests on the statutory definition of poison which is described as a preparation "liable to be destructive to adult human life in quantities of 60 grains or less."

—o—

John Powell of John Powell & Co., New York, has just returned from a month's trip through the middle west. Mr. Powell reports improved business conditions existing in that section of the country.

—o—

United States exports of disinfectants, deodorants, germicides and similar preparations totaled 222,458 pounds, worth $20,168, in August, 1931, as against 123,256 pounds, valued at $18,620, during August, 1930.

Insecticide and Disinfectant Makers Meet Dec. 7, in N. Y.

Dr. Robert C. White
President
Robert C. White Chem. Co.

Evans E. A. Stone
Vice-President
William Peterman, Inc.

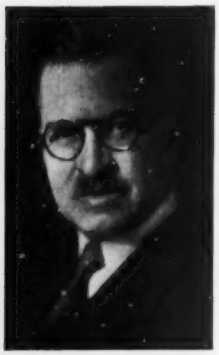
John Powell
Treasurer
John Powell & Co.

Harry W. Cole
Secretary
Baird & McGuire, Inc.

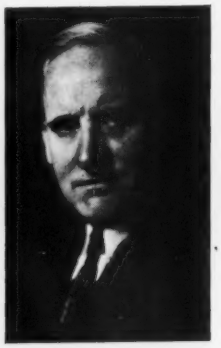
PLANS are rapidly being completed for the Eighteenth Annual Convention of the Insecticide and Disinfectant Manufacturers Association to be held at the *Hotel New Yorker*, Monday and Tuesday, December 7th and 8th. This will be the first meeting of the association to be held at this new skyscraper hotel whose admirable facilities for handling affairs of this kind prompted the Board of Governors to make the change. Another variation from previous procedure is the decision to end the meeting on the second day without extending the sessions into Wednesday morning. In other years the Wednesday morning sessions have not been particularly well attended and it was the belief of the board that by speeding up the program through the first two days the necessity of meeting on a third day could be eliminated. With this end in view it has been decided to introduce the formal committee reports by title only. They will appear in full in the December issue of *Soap* which will come out shortly after the close of the meeting.

Another decision of the board at its October pre-convention meeting was to close all convention business sessions to the public. Meetings will be open only to members and specially invited guests. Cards have already been mailed to members from the office of the secretary, and guest cards may be obtained on application. The registration fee, as in previous years will be $15, this including two luncheons and the annual banquet. Secretary Harry W. Cole is particularly anxious to have a full attendance at this meeting, believing that the advantages of attendance will be realized all the more this year in view of the difficulties that have beset all industry throughout the past year. Non-members in the insecticide, disinfectant and liquid soap industries who desire to attend one or more of the business sessions will be admitted by card. These may be obtained through the secretary.

THE convention will open on the morning of Monday, December 7th. Early arrivals are expected Sunday afternoon to prepare for the time-honored Sunday evening "bull session" when, as usual, the ills of the industry will be hashed and rehashed in preparation for action in the days that follow. Registration will begin Monday morning and the first business session will be officially called to order by President White. With the decision to dispense with reading of the formal reports it is expected that the meeting will be somewhat farther along than usual by Monday noon. Luncheon will be served in one of the private dining rooms of the *New Yorker*, Monday and Tuesday at 12:30. No particular activities have been arranged for Monday night, but on Tuesday night the annual banquet will be held in one of the hotel ballrooms. Grant A. Dorland is acting as chairman of the entertain-



Peter Dougan
2nd Vice-President
Merck & Co.



C. C. Baird
Board Member
Baird & McGuire, Inc.

F. A. Hoyt
Board Member
Frederick Disinfectant Co.

J. L. Brenn
Board Member
Huntington Laboratories

ment committee and has arranged for an extensive floor show following the banquet. The final adjournment of the business sessions will come Tuesday afternoon, following the election of officers.

Among the topics to come before the meeting is the discussion of the New York City Health Department regulations on the sale and use of sodium fluoride. The report of the committee on sodium fluoride, to be given by Evans E. A. Stone, is expected to be informative as Mr. Stone attended all of the meetings leading up to the framing of the New York ordinance. The Board of Health has not as yet made adoption final but it is expected that action will have been taken by the time of the meeting and copies of the ordinance in its accepted form will be available. An address of interest will be given by Dr. Charles L. Williams of the U. S. Public Health Service, on the subject, "The Rat Flea as a Disease Carrier." Dr. Williams is the medical officer in charge of the U. S. Quarantine Station at Staten Island, N. Y. His selection of this topic followed the recent discovery by officers of the Public Health Service that the rat flea carries typhus fever, and so the topic should be very timely. Talks on distribution and packaging are to be given Monday afternoon by speakers as yet unnamed. Another address on the outlook for 1932 has been scheduled and government representatives are expected to speak at several of the sessions. The complete program, as it now stands, is as follows:

Aerial view of the skyscraper hotel, The New Yorker, where the 18th Annual Convention of the Insecticide & Disinfectant Manufacturers Association will be held in December

Monday, December 7th, 9 o'clock—Registration at the *Hotel New Yorker*. Meeting called to order by the President Robert C. White.

Address of Welcome by Charles K. Swafford, Advertising and Publicity Director of the *Hotel New Yorker*.

Roll call, and reading of minutes of the previous summer meeting.

Appointemnt of Committee on Resolutions.

Annual Address of Robert C. White, President.

Report of Treasurer, John Powell.

Report of the Secretary, Harry W. Cole.

Report of the Publicity Committee, Ira P. MacNair, Chairman.

Report of the Entertainment Committee, Grant A. Dorland, Chairman.

Report of the Membership Committee, John Powell, Chairman.

Report of the Committee on Trade Ethics, Evans E. A. Stone, Chairman.

Report of the Scientific Committee, Emil Klarmann, Chairman.

Report of the National Councillor to the Chamber of Commerce of the U. S., Robert C. White.

Adjournment at 12:30 for luncheon.

Monday Afternoon, December 7th, 2:30 o'clock:

Election of Nominating Committee for officers for the ensuing year.
Report of the Committee on Insecticides, C. P. McCormick, Chairman.
Report of the Committee on the Standardization of Insecticides, Charles H. Peet, Chairman.
Report of the Special Committee on Flash Points, W. J. Zick, Chairman.
Report of Committee on Sodium Fluoride, Evans E. A. Stone, Chairman.
Report of Committee on Raw Materials, W. J. Andree, Chairman.
General Discussion of insecticide problems.
Address on Distribution.
Address on Packaging.
Adjournment for the day.

Tuesday Forenoon, December 8th, 9:30 o'clock.

Meeting called to order by the President.
Address on "The Rat Flea as a Disease Carrier" by Charles L. Williams of the U. S. Public Health Service, U. S. Quarantine Station, Staten Island, N. Y.
Report of the Committee on Disinfectants, Peter Dougan, Chairman.
Report of the Committee on the Standardization of Disinfectants, William Dreyfus, Chairman.
Report of the Special Committee on the proposed amendment to the Insecticide Act of 1910 providing for the testing of disinfectants, Peter Dougan, Chairman.
Report of the Committee on Hypochlorite Disinfectants, William A. Hadfield, Chairman.
Report of the Committee on Formaldehyde Disinfectants, K. A. Dolge, Chairman.
Report of the Committee on the Standardization of Nomenclature, George F. Reddish, Chairman.
Remarks by Austin M. Patterson, lexicographer.
Report of the Tariff Committee, C. C. Baird.
General discussion of disinfectant problems.
Adjournment at 12:30 for luncheon.

Tuesday Afternoon, December 8th, 2:30 o'clock.

Address—to be announced later.
Address on the Outlook for 1932.
Report of the Committee on Liquid Soaps, V. W. Mider, Chairman.
Report of Committee on Standardization of Liquid Soaps, Dudley J. Bachrach, Chairman.
Report of Committee on Moth Proofing Materials, R. E. Sturhahn, Chairman.
Talks by representatives of the Government.
Report of the Nominating Committee.
Election of officers and members of the Board of Governors for the ensuing year.

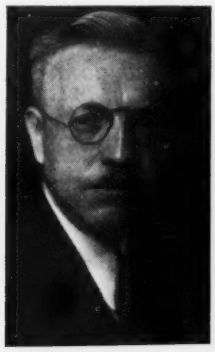
A view in the beautiful new lobby of The New Yorker

Report of the Committee on Resolutions.
Unfinished business.
New business.
Decision as to where and when the Association shall meet next summer.
Final adjournment.

Tuesday Evening, December 8th—Annual Banquet.

Reservation for rooms should be forwarded to the *Hotel New Yorker* which will be the official headquarters during the convention. This hotel is one of the newest and largest in the city, provided with every facility for the convenience of guests. Among the special features worth noting are the radios in every room, the tunnel connection with the Pennsylvania Station and the central location.

C. P. McCormick
Board Member
McCormick & Co.



Dr. C. H. Peet
Board Member
Rohm & Hass Co.

W. J. Zick
Board Member
Stanco, Inc.

H. W. Hamilton
Board Member
Koppers Products Co.

Perfumes For

PARADICHLORBENZENE

Individual odors to meet every fancy. . . . At prices which will appeal to the buyer who is anxious to keep his production costs low . . . and still supply well perfumed deodorant crystals and blocks.

The following have proven extremely popular:

	Lb.		Lb.
American Thistle No. 1010	$2.25	Rose No. 310	$2.50
American Thistle No. 180.	5.00	Rose Heavy No. 99	5.00
Forest Bouquet No. 42	4.00	Trefle No. 619	2.85
Carnation No. 50	5.00	Trefle No. 157	6.00
New Mown Hay No. 319.	2.75	Violet No. 611	3.10
New Mown Hay No. 75	5.00	Wild Flower No. 5300.	1.75
Oriental No. 88	5.00	Wild Flower No. 113	5.00

In addition to the odors listed we also have many others ranging in price from $1.25 to $8.00 lb.

Guaranteed not to decompose or change in odor, no matter how long they remain in contact with the chemical.

All of our Paradichlorbenzene odors are supplied with or without color.

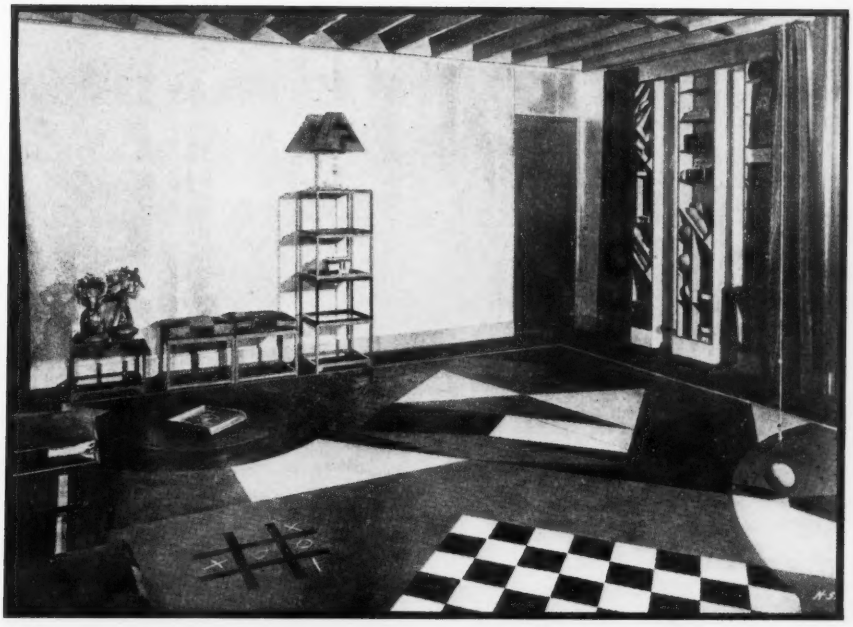
Used one pound to one hundred pounds of crystals.

INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION I&D MA

P. R. DREYER INC.

26 Cliff Street New York

"Its the Odor that Sells the Product"



Modern floorings require modern means of maintenance

MODERN FLOOR MAINTENANCE

By J. L. BRENN

President, Huntington Laboratories

THIS is the age of specialization in every profession, business or industry. The old patent-medicine cure-all, good for every ailment of man or beast, is now a thing of the past. So, too, is the old-fashioned general utility soap formerly used for floors, bathing, washing the clothes, the baby, and the buggy. Modern chemistry has provided us with a means of determining the individual needs of various products, which means has brought the specific product for the specific purpose. Modern floor maintenance is no exception. The need for modern maintenance products has kept pace with the development of the modern types of floors.

Today floors are not merely something to walk on. They are now also a thing of beauty, designed to beautify a building, the home or club, a display room, an office or a store. Also, they are colored and designed not only for appearance but to increase and enhance lighting effects, to serve a decorative purpose, and to bear the burden of much traffic and wear and yet retain their attractive appearance. Naturally they have become more expensive and have become an investment which must be protected and kept in good condition.

For the purposes of grouping various types of floors according to their care and maintenance, floors generally can be divided into three clasess or types, as follows:

Hard Floors	Ceramic, such as tile, clay products, etc. Marble, stone. Terrazzo. Zenothon. Cement, mastic, magnesite.
Composition Floors	Tiletex. Linoleum. Linotile. Rubber Rubberstone. Cork.
Wood Floors	Various Types.

Regardless of the many trade names for manufactured composition floors, every floor in use

Don't just experiment with Rats and Insects . . !

Sell insecticides that Kill consistently

HOPKINS' Analyzed PYRETHRUM

(Extract or powder)

Made Exclusively from the CLOSED DALMATIAN PYRETHRUM FLOWERS

Open or half-open insect flowers necessarily lose part of their active principles through the action of the elements.

To assure yourself of pyrethrum with the highest, consistent run of killing activity, specify HOPKINS' PYRETHRUM PRODUCTS. They are made, unvaryingly, from the highest-testing Dalmatian Flowers only.

We are in position to give you interesting quotations, either for contract or immediate delivery.

Also—Quotations on Derris Root

HOPKINS'
(Oven Dried)
RED-RAT-SQUILL
Physiologically Tested

We are prepared to supply red squill of a toxic quality which consistently surpasses the fatal-dose standard commonly accepted. Laboratory tested, Hopkins' red squill assures the maximum of uniformity.

As the poison SPECIFIC TO RATS AND MICE, red squill is absolutely harmless o human beings or domestic animals.

Sold in bulk. Quotations and descriptive folder gladly sent.

J. L. HOPKINS & CO. 135 William St., New York

Importers, Manufacturers, Distributors of Analyzed and Standardized Crude Drugs

Say you saw it in SOAP!

today will come under one of the above classifications, and a corresponding treatment may be had for it.

Hard Floors

TILE FLOORS:—The type of floor most commonly encountered in this group is the tile floor, both vitreous and semi-vitreous. Before taking up the matter of maintenance of this floor, let us first understand something of its construction. The tile is set on a cement base, in a layer of cement and cement is then used to fill in the interstices or space between the pieces of tile. After this has thoroughly set, the floor receives an acid bath. This is to remove all superfluous cement and any cement that may remain on top of the tile. The acid bath is to be applied by experts only. (This is the one and only time acid should ever be used on a tile floor.) From now on the tile should be cleaned with a regular mopping solution of scrubbing compound.

Tile walls, especially in bath rooms, are very popular, and with their popularity there comes the problem which the average tile contractor has been unable to solve. Since acid cannot be applied to this class of tile without injury to the tile itself, and since anything that will eat off the cement will also injure the tile, it is quite apparent that the only solution to the problem must resolve itself into a method or treatment which will prevent such a condition rather than seek to remedy it. The answer to the problem is quite simple, a liquid wax. The tiles are treated with liquid wax and buffed down to present a smooth surface, thus sealing the face of the tile against the cement.

Spanish tile presents a somewhat different problem. This tile, to start with, is a baked clay mixture usually mounted on a cement block. The treatment will be found in a thorough cleaning with either potash or pine cleanser. If the floor is unusually soft, pine cleanser is to be preferred. Following a thorough cleaning of the floor, from three to seven applications of liquid wax should be applied, each successive spraying of wax being thoroughly buffed, preferably with an electric machine.

Marble Floors: The problem of cleaning marble floors is comparatively simple, as it involves only the regular scrubbing or mopping with the regular solution consisting of about eight ounces of potash scrubbing compound to three gallons of hot water.

In terrazzo floors, we have small chips or pieces of marble which are set in a base of cement and then ground down and highly polished. The less costly terrazzo floors will contain a great amount of cement; the better the grade of terrazzo the more marble chips will be found in it. In a ninety-five per cent terrazzo floor, it will present an almost solid face of marble chips packed closely together. The treatment for terrazzo floors is the regular eight ounces of stock solution of potash scrubbing compound to three gallons of hot water, spread on the floor and either mopped or scrubbed for a few minutes then thoroughly rinsed.

The painted concrete or cement floors should be cleaned with hot water and scrubbing compound, eight ounces to three gallons of water, and then waxed thoroughly with about three coatings of liquid wax. A potash scrubbing compound is the best product for cleaning unpainted cement or concrete floors. In the event that these floors be coated with grease or oil which is not entirely removed, a good scrubbing with a strong detergent should be given.

Mastic or magnasite: The condition of the floor will determine largely the product which is to be used on it. For the average mastic or magnasite floor, a regular potash scrubbing compound, will solve the problem. However, where bad stains have spread over the floor or where it has faded or changed color in sections, a pine cleanser will serve the purpose better. Almost without exception the solution of the cleaning problem on these floors will be greatly simplified if they are given a thorough scrubbing instead of mopping. Liquid wax is recommended for these floors and invariably from three to five light coats should be applied after cleaning. With the wearing out of traffic lanes, the wax can be renewed where it shows signs of wear. These floors should be thoroughly cleaned from two to six times a year, depending in a large degree upon the traffic which they are called upon to bear. In every case bear in mind that the floors will quickly absorb the first coat of wax, this filling the pores. It will then be necessary, depending on the density or the texture of the floor, to apply several additional coatings.

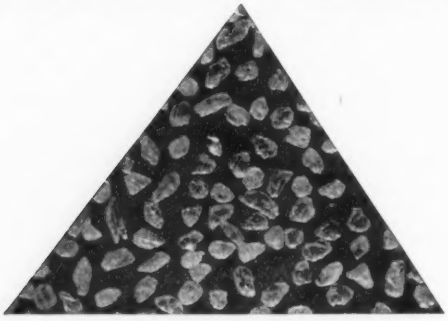
Composition Floors

LINOLEUM and linotile:—The treatment for linoleum and linotile floors which will clean them easily and correctly is with neutral potash soap compounds designed especially for the purpose and used in hot water. Liquid wax is strongly recommended for the preservation of these floors. The less mopping and the less water applied to linoleum or linotile floors, the better for the floors. Water should never be allowed to stand for any length of time on either type.

Linoleum or linotile which has been neglected or abused and allowed to deteriorate until in exceptionally bad shape may many times be restored and life increased by many years. The usual cause of quick deterioration of such floors is the use of cheap soaps and powders containing abrasives, free alkali, alkaline salts and insoluble fillers.

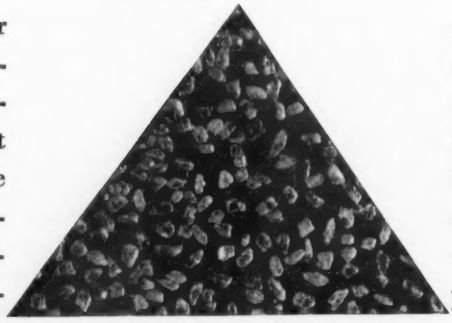
DRESS UP THESE "PARA" CRYSTALS AND MAKE MONEY

du Pont Para-Dichlorobenzene combats moths, peach borers and offensive odors

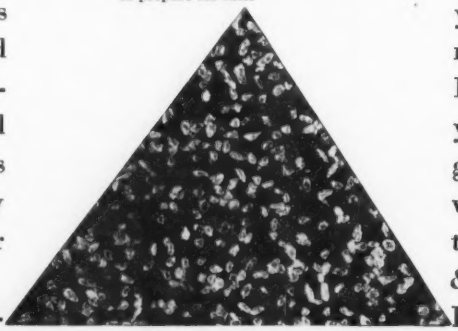


Du Pont "Para"—large size crystals. For shaker top cans. Du Pont standards assure uniformity at all times.

HERE'S a moth destroyer that will not injure fabrics, is easy to use, has a pleasant, antiseptic odor that doesn't linger in fabrics after they are exposed to air—du Pont Para-Dichlorobenzene. "Para" crystals are also an effective control against the peach and apple tree borer and a deodorizer that will neutralize offensive odors in lavatories, garbage cans and stench traps. Du Pont Para-Dichlorobenzene is safe and efficient. Available in three sizes of uniform crystals, it is easy and economical to prepare for sale.



Du Pont "Para"—medium size crystals. For making cakes or blocks. Three sizes make it easy to prepare for sale.



Du Pont "Para"—small size crystals. For agricultural purposes. Can be moulded, too, if desired.

Du Pont Para-Dichlorobenzene can be used in shaker top cans, moulded into blocks or balls, and colored or perfumed to enhance its sales appeal. It is highly effective against certain orchard insects. There are many ways you can dress up these pure, fine quality crystals to make money. Their efficacy has been proved. It remains with you to package attractively and market Para-Dichlorobenzene. Here is your chance to enlarge your volume and make a greater profit. Start today by writing for samples and prices to E. I. du Pont de Nemours & Company, Wilmington, Delaware.

DU PONT REG. U. S. PAT. OFF.

ORGANIC CHEMICALS

E. I. DU PONT DE NEMOURS & COMPANY, INCORPORATED, WILMINGTON, DELAWARE

Say you saw it in SOAP!

Mop such a floor thoroughly with soap compound solution. When thoroughly dry, spray or mop with pure linseed oil to the point of saturation. This floor should then be allowed to dry for five to seven days. Mop again with soap compound, cleaning a small area about ten feet by ten feet, and dry immediately. When the entire floor has been cleaned, allow six hours to dry. Then spray liquid wax, filling all the pores and crevices and applying from two to three coats, buffing each coat thoroughly.

Rubber tile flooring is best cleaned in the same manner as linoleum. For bad stains, such as occur in hospital operating rooms where much of this flooring is used, simply double or triple the amount of soap used and a few moppings will remove the stains. These stains are generally caused by such chemicals as iodine, mercurochrome, bichloride of mercury, ether and alcohol. As in the case of linoleum and linotile flooring, water should never be allowed to stand for any length of time on rubber tile flooring.

Rubber tile floors, if kept perfectly clean, will present a soft sheen or gloss from the regular wear of the traffic. However, water-wax emulsions in many cases may be used to advantage as a covering to protect the floor and preserve it. In no case, should a wax, containing solvents, such as naphtha, turpentine, benzene, or oil be used.

Wood Flooring

WOOD floors very roughly may be divided into two general classes, painted and unpainted. On painted wooden floors, the regular pine cleansers may be used. These floors should then be sprayed and buffed down with liquid wax. On unpainted wooden floors, it will be necessary to make a distinction between the fine hardwood floor which is to be kept in perfect condition and the rougher floors which are used in school rooms and office buildings. For the finer floors, such as parquet, etc., *do not* use water, but clean the floor with turpentine, and if necessary a little steel wool, removing not only all of the dirt but any wax that may have been used on these floors. Follow this treatment with several coats of liquid wax, buffing each coat in thoroughly. It will depend largely upon the floor as to how many coats of wax will prove necessary. An extra dry floor may take an additional two or three coatings.

For the rougher wooden floors, pine cleanser is again recommended to be followed by a treatment of liquid wax, or oil floor dressing, depending largely on the use which the floor is to receive and the appearance desired.

—o—

Household insecticides to the amount of 514,025 pounds, worth $153,479, were exported from United States during August, 1931, as compared with 1,110,455 pounds, valued at $375,290, during the same month of last year.

—o—

New Fumigating Law in Pittsburgh

The Council of the City of Pittsburgh has recently adopted a new ordinance covering fumigation of buildings and extermination of vermin which supersedes regulations previously in force. The ordinance, approved by Mayor Charles H. Kline, October 9th, and now in operation, contains some new and more stringent regulatory features.

It carries provisions calling for a license fee of $50 per year for individuals or firms engaging in the business of exterminating vermin as well as a bond in the sum of $10,000 to cover any injury which might be incurred in the course of the fumigating operation. Strict regulations are in force covering the use of "hydrocyanic acid, cyanogen or any other gases, fumes or vapors which are so dangerously toxic to human beings as to constitute a hazard to public health when the same are used in concentrations necessary for effective fumigation." A board of examiners has been set up to investigate thoroughly the training, experience, qualifications, character and reputation of applicants for licenses and to pass on their fitness.

In each individual fumigating job it is necessary to obtain a permit (fee-$2.00) stating the day and hour when the work is to be done. Before fumigation the operator must inspect the premises and advise all occupants of the necessity of vacating the danger area. He shall then seal all holes and openings in walls and lock all doors and windows leading to adjoining apartments. After liberating the gas he is instructed to placard the vacated apartments and retain the keys to them until all danger is past.

Additional provisions call for the extinguishing of all fires whenever an inflammable gas is used and the removal of all food except such food as is kept in sealed air-tight containers. It is specified that no cyanide crystals are to be exposed on floors and that an impermeable container must be used for the fumigating ingredients. When rooms are opened after gassing no person except the operator is allowed to enter until all traces of the gas have disappeared and in no case is any adult to enter until twelve hours time and no child under six until eighteen hours have elapsed. The residue in the fumigating jars is to be disposed of by thoroughly flushing down the toilet bowl. Violations of any portion of the ordinance carry penalties, on conviction, of fines not exceeding $100 and imprisonment up to 30 days.

Polishes made with Wax B964A are:

1. Non-inflammable
2. Free from solvents
3. Practically odorless
4. Free from scum and will not separate
5. Penetrating and will fill cracks and pores
6. Excellent for water-proofing materials of construction
7. Applied easily by mop, brush or spray
8. Economical because of low material and labor costs
9. Producing lustrous, durable finishes without any rubbing

Concentrated

"Rub-less" Polishes

are here.

WAX B964 is a special concentrated emulsion of Carnauba Wax and resins. It is supplied in paste form. It may be dispersed in 1-2 parts of cold water to give rub-less polishes for cement, linoleum, marble, tile, oil-cloth, rubber, leather, wood and compositions. When diluted with 1 part of water the highest lustre is obtained. Dilution with 2 parts of water gives a standard gloss. If slight rubbing is permitted it may be diluted farther.

These polishes are used on cement floors not only to give a gloss but to prevent dusting and makes them water-repellant. Similarly, articles made of plaster-of-Paris or the above named materials are greatly enhanced in appearance and utility.

These coatings dry to the touch in 10-20 minutes. Floors so treated are not as slippery as when waxed. Water spilled on them may be mopped up without injuring the lustre.

Price Schedule (F. O. B. New York)

440 lb. drums	40 lb. cans	8 lb. cans
16c. lb.	21c. lb.	26c. lb.

GLYCO PRODUCTS CO., Inc.
BUSH TERMINAL BLDG. No. 5 BROOKLYN, N. Y.

ELKO
WATER SOLUBLE PERFUMES

Highly concentrated non-alcoholic products for Theatre Sprays, Liquid Deodorants, Disinfectants and other Aqueous Preparations. Four ounces or less to the gallon usually gives desired results.

A Few of Our Popular Odors

Arbutus W. S.	Lilac W. S.	Oriental 412 W. S.
Carnation W. S.	Locust W. S.	Pine W. S.
Chypre W. S.	Millefleur W. S.	Rose W. S.
Lavender W. S.	Oriental W. S.	Violet W. S.

$2.50 Per Pt. Post Paid $14.00 Per Gallon F. O. B. Irvington, N. J.

Can furnish any odor desired in Water Soluble Perfumes at prices depending on quality and strength.

also makers of a full line of Perfume Oils for LIQUID and CAKE SOAPS

Address all Correspondence to Main Office and Laboratories

E. M. Laning Company, Inc.
P. O. Box 42
433 Stuyvesant Ave. Irvington, N. J.
New York Office, 130 Pearl Street

Say you saw it in SOAP!

Do Bar Soaps Transmit Germs?

ACCORDING to Cleanliness Institute, after some recent investigation, bar soaps do not transmit germs. They discuss this in a recent issue of *Cleanliness Journal* as follows:

"Confronted in a public washroom with an ordinary washbowl, a common towel, a common bar of soap—if any—and perhaps a common drinking cup, the average person who is at all health-minded may turn his back on them collectively and say, 'I'd rather go unwashed than run the risk of picking up germs.' "

But one washes safely in such circumstances, even though hands must dry in the air, for the soap is the element in the picture that turns on the green light rather than the red. Common it may be, to paraphrase Paul's heavenly visitor, but not unclean. For it is rinsed off, unlike the towel and drinking cup, to expose a new, clean surface for each user. And its actual use is accompanied by additional rinsing that washes both suds and dirt away.

Of course it is always "nicer" to have one's individual piece of soap, and the fastidious person prefers to wash with that, even though he knows his neighbor's is safe. But a fastidiousness which sends him away with soiled hands because he would rather not use communal soap is so illogical that it amounts almost to "throwing the baby out with the bath."

W. R. Redden, M.D., of Cleanliness Institute's Health Service, has scrutinized a considerable body of literature on the subject and consulted with some of the foremost bacteriological and medical men in the country. Every evidence is to the effect that soap, even in a public lavatory, is safe and sanitary to use in the ordinary processes of washing and rinsing.

Soaps Kill Many Germs

The statement of no less an authority than Dr. Milton J. Rosenau, eminent bacteriologist, is on record: "The danger of infection from using bar soap is remote."

A report on a more positive point—soap's actual power to kill certain bacteria—has been made by John E. Walker, M.D., in a recent issue of the *Journal of the American Medical Association,* under the title, "The Germicidal and Therapeutic Applications of Soap." He summarizes it as follows:

"Soaps are strongly bactericidal against pneumococci, streptococci, meningococci, gonococci, diphtheria bacilli, influenza bacilli, and Spirochaeta pallida. Their activity against these organisms compares favorably with that of many of the recently synthesized chemicals. When properly used for cleaning the hands or for the washing of eating utensils, soaps are undoubtedly potent factors in preventing the spread of diseases due to these organisms. The action of soaps as germicides is, however, limited by the fact that they do not destroy staphylococci and typhoid bacilli."

More Reasons for Safety

Even without considering soap as a germicide, we may point to the following reasons why fear of common soap is unjustified.

1. Commercially made soap is sterile, because the manufacturing processes make it so.

2. Pathogenic organisms do not propagate on soap. Recently an examination was made of seventy-five cakes of soap obtained from as many sources, including hotels, machine shops, railroad stations, kitchens, abattoirs, and public baths. On culture they failed to show a single living organism. For a more severe test, a number of cakes of soap were inoculated with twelve of the most virulent varieties of germs, and incubated. The germs were all dead in less than half an hour, except in three instances. These experiments were not made for any soap company, but were carried on in connection with an extensive study of sterilization for operations in places other than hospitals.

3. If the surface should become contaminated, the unwelcome organism will suffer one of three fates: to die a natural death quickly; to be killed by exposure to the soap; to be washed off in the rinsing that goes with washing.

4. Ordinary washing offers little chance for bacteria to invade the body. The four main avenues are the eyes, nose, mouth, and skin. The first three need hardly be discussed in connection with the use of soap. And since infection of the skin seldom occurs while the skin remains intact, it is necessary only to consider what happens when the skin is scratched or broken.

Might the common cake of soap cause infection in such cases?

The evidence is all to the contrary. That infections are not transmitted by soap and water is indicated in the experience of many industries, such as those in which cutting oils are used. Further,

Finer Atomization With

THE NEW

TORNADO Compressor Type Electric Sprayer

A leader for years in the manufacture and sale of Portable Electric Sprayers, Breuer has maintained an enviable position by keeping step with the needs of the insecticide trade.

Now, the new TORNADO Model 52, illustrated, is ready for your inspection and use—greater power, finer atomization with new, positive pressure compressor construction, a beautiful custom-built job guaranteed to please your customers—complete, new design and operation—compact, self-contained, one hand unit—positively the most economical and efficient modern method for applying insecticides, disinfectants and germicides. Just the speedy, efficient, all-purpose unit you have always wanted to stimulate business.

The first manufacturer to see and use this new spray performance ordered 180 units immediately! Let us send you sample on free trial so that you too may use and inspect this unit. No obligation. Write us today for complete information.

New Features You'll Like!

1—Not a blower tyne incorporates a real air compressor fan unit.
2—Positive pressure compressor operation atomizes insecticides into finest smoke mist obtainable.
3—A real, self-contained, one-hand unit.
4—Compact, all aluminum construction with quart container.
5—No shoulder straps or hose to trouble.
6—Powerful ⅛ H.P. G.E. Universal Motor.
7—Weight only 4 pounds.
8—Just plug in — instant operation.
9—Fastest, finest insecticide atomization obtainable.

We also make Model 6 Tank Type and Model 50 Blower Type Sprayers —leaders for years.

BREUER ELECTRIC MFG. CO.
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AN ADHESIVE FOR EVERY MACHINE OR HAND OPERATION

ONLY HALF THE STORY!

Our long list of nationally famous customers only tells half the story of our glues. The tell-tale production schedule tells the other half.

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"TESTED"
Adhesives

have long been a standby in all of these factories because of their unfailing dependability in keeping their end of the production schedule up to par.

And what makes these adhesives more acceptable is the fact that you pay no extra price premium either in the original cost or operating costs.

Let us send you our half the story . . . it's worth looking into.

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WORLD'S LARGEST PRODUCER OF ADHESIVES

Sales Offices in all principal cities

Say you saw it in SOAP!

the work of the United States Public Health Service in 1921 in connection with the cure and prevention of industrial dermatitis centered chiefly about the use of soap and water, the soap being used by workers indiscriminately. A definite program of careful soap and water scrubbing before work and after work not only cleared up the dermatitis in 80 per cent of the workers, but was found to prevent its occurrence among others exposed.

Real protection lies, not in avoiding common washroom facilities, but in using them intelligently; washing under running water with such soap as is available, and drying by means other than the common towel.

—o—

Gelatinizing of Cresol Compound

The composition of the cresol and the proportion of fatty acids in the linseed oil are important factors in cresol compound manufacture, according to a paper read before the British Pharmaceutical Conference by Messrs. Glass and Jones recently, states *The Manufacturing Chemist*, London. "It is shown that both high boiling tractions in the cresol and high meta-cresol content cause gelatinization of cresol compound on dilution, and when high meta content is the only factor that the effect is intensified by high soap percentage. It was found that samples which had been rejected before the relationship between fatty acids and meta-cresol content had been realized could be made to give perfect miscibility when the proportion of fatty acids was reduced. When the higher boiling fractions were the cause of the trouble, however, reduction of the soap percentage had very little effect. The authors remark that if a standard cresol compound is required to give a clear liquid at all dilutions, then a more precise definition of the standard cresol is necessary; on the other hand, if dilution effects are not to be regarded as so important, then a greater variation in the composition of the cresol may be admitted. The The present standards fail to appreciate the effects produced by the composition of the cresol, and while a standard of 80 per cent distilling between 195° and 205° C. is quite reasonable for a good quality cresol, it affords no criterion of its behavior as a constituent of cresol compound. The presence of fractions boiling at about 205° C., the proportion of meta-cresol present, the ratio of meta to high boiling-point fraction, and the relative proportion of fatty acids to meta-cresol, are all of material consideration in attempting to standardize cresol and compound. During the subsequent discussion, attention was called to the difference in color and odor of cresols today compared with a few years ago, the great disinfectant value of higher boiling cresols, and the suggestion was made that cloudiness on dilution was conditioned by the hardness of the water used in diluting the compound."

—o—

Pyrethrum will be produced in Porto Rico and the Virgin Islands in commercial quantities if initial experiments now being conducted at The Isabelo (Porto Rico) Experiment Station indicate the probable success of such an undertaking. The semiarid climate required for pyrethrum cultivation is found both in the Virgin Islands and along the southern coast of Porto Rico.

—o—

A report published in the *Malayan Agricultural Journal* states that stored derris roots have from time to time been reported as bored by beetles. Not only is "tuba" seriously affected in Malaya, but consignments of derris root exported from Malaya have been found on arrival at their destination to be heavily damaged by insects. Six known types of beetles thrive on derris root, which is the source of the insecticide base "tuba."

THE SECRETARY GETS AN INQUIRY

THE Editor of *Soap* received the following recently from Harry W. Cole, Secretary of the Insecticide & Disinfectant Manufacturers Association: "Once in a while, we have an epistle from some would-be genius or cracked-brain idiot which is amusing, or refreshing—or both. It has not been our fortune or misfortune to receive one of these missives in some time. However, the record was broken this morning when the enclosed postal from Chicago came to hand, and if you are good at figuring out cross word puzzles, you may be able to tell what the writer is trying to get at . . . I understand that the nut factories are overcrowded at the present time, which probably accounts for this fellow being allowed to roam loose until they find room for him."

The postal card referred to, stated: "Dear Sir: Can you let me have a list of insecticides and chemicals for human parasites, with relative values and relative prices? I am just one of the public who can possibly raise a little hell or spill the beans. There is no information whatever coming out of the Department of Ag. except a little school-girl stuff, and none from the Bureau of Chemistry. The Insecticide Association too fails to make available to the public any but fattening compounds. I want *immunization*—and something that will not stain bed clothes or clothing too much, but it must have the first quality. I don't want to put salt on their tails and kill them. Yours truly, ... "

MERCK'S CHEMICALS . . .

Works of Merck & Co. Inc. at Rahway, N. J.

are made on a large scale

are sold at prices based on large-scale production

are regarded as standard by leading insecticide and disinfectant mfrs.

PARADICHLORBENZENE
CARBON DISULPHIDE
SODIUM FLUORIDE
CARBOLIC ACID
CARBON TETRACHLORIDE
STRYCHNINE
CRESOL U.S.P.
CORROSIVE SUBLIMATE

Methyl Salicylate

The one widely accepted odor for fly sprays—tested, tried and approved by leading manufacturers. Fresh and aromatic—pleasant to human beings, yet it does not attract insects like some of the sweeter floral essences. Merck's Methyl Salicylate is manufactured on a large scale and conforms to all U.S.P. standards. Write or 'phone our nearest office for quotations or trial order.

MERCK & CO. INC.

MANUFACTURING CHEMISTS

161 Sixth Avenue New York — Rahway, N. J. — 4528 So. Broadway St. Louis

INDUSTRIAL DIVISION: 916 PARRISH STREET, PHILADELPHIA

Canadian Works: MERCK & CO. LTD., Montreal

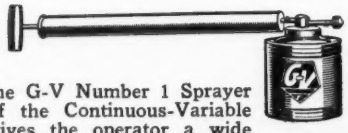
An Announcement

To better serve our customers in the insecticide field we have acquired the hand sprayer division of the G-V Sprayer Company of Lebanon, Tenn., and Wichita, Kansas, and have combined this division with our power division at South Bend.

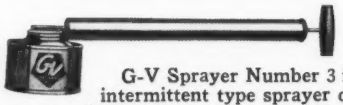
G-V hand sprayers are so well and widely known as a quality product by users of liquid insecticides that it is hardly necessary to say more than that this high standard will be maintained.

This consolidation offers the industry a logical source of supply for sprayers ranging from small, low priced hand sprayers for household use up to power equipment of the largest capacity. There are 14 different models, one of which will exactly meet your requirements.

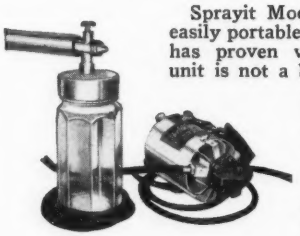
A Sprayer For Every Purpose » » » »



This is the G-V Number 1 Sprayer which is of the Continuous-Variable type. It gives the operator a wide choice of spray ranging from a needle like stream to a complete fog as desired. Particularly popular with exterminating concerns and quantity users.



G-V Sprayer Number 3 is a lower priced intermittent type sprayer of simple, sturdy construction widely used as a household sprayer. All Model G-V sprayers are furnished in either tin or brass, as service dictates.



Sprayit Model 70 is a compact, easily portable electric sprayer that has proven very popular. This unit is not a blower fan type. It incorporates a positive air compressor which means real atomization, greater operating ease, faster application and better all around satisfaction.

SEND FOR CATALOG

The Electric Sprayit Co.

South Bend, Indiana

Federal Sanitation Company in New Plant

Federal Sanitation Company, Cleveland, manufacturers of soaps, insecticides, disinfectants, cleaning compounds, polishes, etc., has recently occupied a new plant at 2340 Euclid Avenue, having moved from the old location at 1514 Prospect Avenue. The company, organized in 1926, is headed by Joseph W. Schiffer who was formerly president of Norman C. Hayner Co., Rochester. Edward C. Balzhiser is vice-president of Cleveland Sanitation Co., and William E. Kaynes is secretary. A complete line of sanitary products for institutions, schools, hospitals, hotels, public buildings, etc., are manufactured.

Consider Packaging Problems

Among the topics to be taken up at the second Packaging, Packing and Shipping Conference, to be held at the Palmer House, Chicago, March 7-12, 1932, are a number which will be of particular interest to individuals interested in the packaging and shipping of soaps, washing compounds and similar preparations. Newly developed packing and shipping materials will be considered, carton and container design for display purposes will be discussed and the general technique of modern packing and shipping will be outlined. Another feature of the conference, which is being held under the direction of the American Management Association, is the exhibit of packages, containers, supplies, equipment, machinery, etc., which will accompany the conference. To the company developing and introducing the best package during 1931 the A. M. A. will award the Irwin D. Wolf trophy named after Mr. Wolf who is general chairman of the approaching series of conferences.

—o—

Schwenk Safety Device Corp., manufacturers of safety handling equipment and carboys have moved from 70 East 45th Street to 27 Water Street, New York, N. Y. Their new telephone number is WHitehall 4-9324. I. C. Goldman is president of the concern; M. E. Thayer is sales manager, and Melvin Pine is engineer.

—o—

The next annual meeting of the American Drug Manufacturers Association will be held at the Greenbrier Hotel, White Sulphur Springs, West Virginia, April 18 to 21, 1932.

New Davies-Young Wax

A new "self-polishing" floor wax has been put out by the Davies-Young Soap Co., Dayton, Ohio, under the trade name of "Beamax." The new product is described by the manufacturer as a light straw colored liquid in the form of a non-separating emulsion which when applied to floors leaves a transparent glossy finish without rubbing or polishing. It can be used on any type of flooring and on white or colored woodwork as the wax film is transparent. The wax dries and the floor is ready for use in twenty minutes. It can be mopped with clear water in one hour without dimming the lustre or discoloration. The product is stated to be made wholly of waxes, permanently emulsified. It is stated that it has no odor, is not inflammable, and will show no lap-marks where extra or double coats are used on a part of a floor.

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Opportunities for Export

The following opportunities for export of American soaps and allied products have come to the Bureau of Foreign and Domestic Commerce, Washington, D. C. American manufacturers can secure the full details of the inquiries by communicating with the Bureau, care of the Department of Commerce. Be sure to mention the number of Foreign Trade Opportunity in writing.

54,363	Whale oil soap	Porto Rico	Agency or Purchase
54,436	Insecticides, agricultural	Argentina	Agency
54,443	Dental cream in tubes	Peru	Sole Agency
54,529	Insecticides, polishes, water softeners, cleaning and washing compounds	London	Agency
54,557	Laundry soaps, blue	Colombia	Agency
54,563	Toilet preparations	India	Agency

VOGEL
Insecticide Sprayer

A substantially constructed sprayer that will stand up under hard usage, priced at a remarkably low figure.

Hand and continuous sprayers, designed and manufactured to give the greatest value for the least outlay.

Also Manufacturers of

Shaker Top Cans
for paradichlorbenzene crystals

Plain or Decorated

Tin Cans
for Pastes, Soft Soaps, Dry and Liquid Insecticides

Holders for Deodorizing Blocks

Write us about your requirements and we will gladly submit samples and prices without any obligation on your part.

William Vogel & Bros.

Incorporated

"IN BUSINESS OVER 50 YEARS"

37-47 South 9th Street
Brooklyn, N. Y.

SOMETHING NEW!
Combination Urinal Screen and Air Conditioner!

Registered U. S. Pat. Office

SELLING Like WILDFIRE

SANI-DOME . . . the specialty that's making sales history is a Combination Urinal Screen and Convenient Deodorizing Bloc Holder in one.

The bright shiny SANI-DOME replaces the ugly old strainer plate or wire mesh screen and holds a bloc of effective deodorizer right at the chief source of odor.

The SANI-DOME is built to outlast the urinal fixture itself. Made of cast brass . . . Nickeled, chromed or lacquered, as you desire. While its screen feature prevents cigarette butts, chewing gum, paper, matches, etc., from clogging the drain . . . its special perforation allows maximum drainage.

The SANI-DOME BLOC (shown in the small picture inserted in the device) disseminates a gas which neutralizes and counteracts obnoxious odors . . . killing them as they arise . . . before they spread through the lavatory. And what's more—hands never touch the SANI-DOME when in use. A special key comes with it.

Everyone who sees the SANI-DOME wants it . . . big building superintendents and janitors alike. It's novel and practicable and economical. And packed with sales appeal!

NOTE

A Washington jobber got a single order for 200 of them. The same opportunities are open to you. Every SANI-DOME sold means repeat orders for blocs. Every tin of blocs sold yields almost 100% profit.

U. S. SANITARY SPECIALTIES CORP.

433-41 SO. WESTERN AVE.
CHICAGO, ILL.

NEW YORK CITY BIRMINGHAM, ALA.

"Come to The Convention"—Cole

In a bulletin mailed to members of the Insecticide and Disinfectant Manufacturers' Association, November 5th, Secretary Harry W. Cole details a number of reasons why attendance at the coming annual convention should prove profitable. To quote Mr. Cole:

"Attendance affords you an opportunity to get together with those in your particular line of business whom you usually see not more than once a year.

"By 'talking things over' with your competitors you will be able to more correctly appraise the present business situation and establish a sense of direction for the days to come.

"It will be your privilege to listen to some of the country's foremost speakers on topics which are of intense interest right now to every member of the industry.

"You will have a chance to gain new ideas, to learn from others just how the most troublesome of your problems are being solved, and to carry back home ideas which you might use in your own business to considerable advantage and profit.

"It should be of value to your sales force to have you come back home with an understanding of what must be done to expand the market for your goods.

"Those who have capital invested in your business look to you to keep posted on developments in the industry and to gain new and helpful information which will help to pay dividends.

"Your community, too, has faith in your ability to keep the wheels of industry turning and to provide employment for a reasonable number of people throughout the coming year."

The meeting will be held at the *Hotel New Yorker*, New York City, Monday and Tuesday, December 7th and 8th. The sessions will be closed, and admission will be by card only. Individuals interested in attending may address Mr. Cole at Holbrook, Mass.

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Defer Action on N. Y. Insecticide Rules

The new regulations which are scheduled to be adopted as an amendment to Section 104 of the New York City Sanitary Code have not been approved by the New York Board of Health, as we go to press, but it is expected that final action will be taken within a period of two weeks at the most. Several minor changes have been proposed and a meeting was called during the week of November 9th to consider the regulations with these changes. In their final form the regulations are not expected to differ greatly from the tentative draft published in the September number of *Soap*.

—o—

In the manufacture of mosquito repellants, materials which disguise the natural odor of the human skin are most effective as the attraction of the human odor is very great to most insects. To prevent annoyance from mosquitoes, a mixture of eucalyptus oil, citronella oil, lavender oil, bitter quassia, and carbolic acid, is suggested in *The Manufacturing Chemist* of London, quoting Seguy of the Paris Natural History Museum. It is also stated that a straight ointment of thymol in petroleum jelly is very effective. The danger of serious infection over and above the transfer of malaria, yellow fever, etc., by mosquitoes, is pointed out.

—o—

M. D. Gill, vice-president of American Tar Products Company, accompanied by George Forker, general manager, is taking a trip through Europe in the interest of the company.

A NOVEL FISH STORY

ONCE upon a time there were two fathers who had two sons. The fathers were in the coal-tar products and disinfectant business which of course should have made them both good fishermen. It seems that on one beautiful sunny day in the early fall, the fathers decided to take their young sons fishing and show them how it was done. So they hied themselves to a place called Cape Cod where one of the fathers owned a summer home, and perforth, all went fishing. But, alas, the sons showed the fathers how it was done, and caught all the fish. Thereupon, the fathers to show their prowess as rearers of fishermen had their pictures taken with their sons' catch. On the left, gentle reader, is none other than Sam H. Bell of the Koppers Products Co. of Pittsburgh, and on the right, Maurice D. Gill, manager of the New England Division of the same company.

LETHANE 384

The PHYSICAL PROPERTIES of an insecticide play a large part in its acceptance by the trade.

LETHANE 384 insecticides are non-staining, practically water-white in good quality solvents, and leave no residual odor.

Röhm & Haas Co., Inc.

222 W. Washington Square

Philadelphia, Pa.

The SPRAYER Comes FIRST

It makes no difference how effective the insecticide or repellant may be, it MUST be correctly applied if the results are to be the BEST. The better the sprayer, the better the customer will like the product. That is the rule.

Acme Makes Sprayers to Fit Every Requirement

Over fifty years in the business has eliminated all risk and experiment in ACME products. The very height of perfection has been attained. Every sprayer carries a money-back guarantee of satisfaction. If it isn't in our regular line, we can build a sprayer to fit YOUR needs.

Our No. 200 sprayer is a leader. Special drip cup feature; air and spray tubes coordinated to produce a mist or fog that hangs in the air longer; special processed leather plunger, etc., etc. Tell us your needs. Write for samples and prices.

Potato Implement Company, Dept. 34

TRAVERSE CITY, MICHIGAN

Say you saw it in SOAP!

Power Laundry Practice

(*From Page* 29)

tions are in the magnitude of 0.01. When these extremely low alkaline concentrations are fully appreciated, it becomes obvious why attempts to refer to results obtained at high concentrations really lack sound technical judgment. Reference to the damaging effects on cotton fabrics of a 1% solution of sodium hydroxide at a pH of 13 can hardly be considered seriously when the conditions in practice probably call for the use of a 0.02% solution of sodium hydroxide in a softened water carrying sufficient bicarbonate alkalinity to not only fully neutralize the hydroxide to carbonate but have sufficient to spare to buffer the alkalinity of the carbonate formed, resulting in a solution of a pH of about 10. The use of alkalies in aiding soap evolves largely around the detergent properties of the admixtures. Unprejudiced study in this direction would be of real benefit to the power laundry industry inasmuch as it might lift the veil of mysticism and dispel the confusion now existing. *After all, soap is still the real detergent.*

3. *Soil*

WHAT is it? The correct answer would go far toward simplifying the whole problem of washing. The very fact that soil cannot be defined in simple terms has been the stumbling block of all technical experimentation. Although arbitrary standards are admittedly necessary for the study to proceed, the artificial nature of the soil chosen always leaves the conclusions open to criticism. Every standard for comparison chosen may allow a different conclusion to be reached, either by design or accident. Several of the most recent articles in the technical journals almost directly contradict each other because the standards of comparison chosen were quite different. Perhaps the practical laundry operator is right in his assumption that laboratory studies are of little value to him.

Perhaps the best approach is by way of practical studies aided by scientific instruments. The maintenance of the highest grade of whiteness during actual operation has frequently been the basis of constructive work. Unless all operating conditions are carefully noted, however, erroneous conclusions can be drawn because of the difficulty in controlling all possible variables entering into the washing formula. The final judgment of this procedure is the whiteness of the washed fabric. Here, again, the variables enter. Bluing, sizing, finishing, and personal taste enter into the conclusions. Some of these can be eliminated by the employment of complicated photometers. Finally, as the differences in results become small, as we approach the perfect process, the par in laundering, the method of measurement breaks down and leaves us still groping for the ideal procedure. As we approach more perfect work we must be increasingly careful in the method of measurement.

In conclusion, I would like to stress the necessity of studying this problem with the practical limits in view. Elimination of irrelevant factors will do much toward avoiding the present state of confusion regarding basic principles of detergency. Unprejudiced cooperative work should arrive at more definite statements of fact for the ultimate consumers of soap products, who in this discussion are the laundry operators. Perhaps I am leaning too heavily toward their viewpoints. If so, it is because I have spent a number of years in intimate association with them trying to fully appreciate their problems in their way.

—o—

Benz Products Co., sanitary supplies, Milwaukee, has appointed Fred E. LaCombe, formerly with Lavo Co., as sales manager.

—o—

To Review Maine Insecticide Act

United Drug Company, Boston, has gained its point in the litigation to review before the United States Supreme Court the Maine Insecticide Act, enforcement of which the drug company seeks to enjoin. The court, after considering briefs filed by both sides dismissed the opposition voiced by state officials, and accordingly the Act will come before the Supreme Court for review.

Interference with United Drug Company's business in Maine by harassing its customers is charged against commissioner of agriculture Frank P. Washburn. This interference, it is set forth, has come in the form of threats of action against patrons who purchase insecticides and fungicides to the extent of $250,000 annually. For some years the manufacturer has complied with the Maine act requiring annual licenses on each of his brands, but in the early part of this year did not comply with the act. The secretary of agriculture cited one of the appellant's customers for violation of the act and threatened to cite others, it is claimed. To avoid further difficulty, licenses were taken out and simultaneously an action to enjoin enforcement of the act was sought. The injunction was refused in an oral court opinion, whereupon an application for hearing in the supreme court was made.

On behalf of the drug company it was contended that its sales are carried on in conformity with the Federal Insecticide Act of 1910, and that the Maine act imposed unnecessary expense

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of our manufacture has been the STANDARD for the jobbing and wholesale trades. A high quality product packed in pint cans up to 50 gal. drums. Will not lump or cake.

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A better product at a lower price than you can make yourself.

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A time-tested product for use on all kinds of metal.

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Shipped direct under your own labels if you choose.

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Let us send you a sample and prices, —also, a copy of our *booklet*, "Chemical Specialties,"—giving full description, composition, uses, and other information for the jobbing trade about our full line of

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INSECTICIDE SPRAYS
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and burden upon the petitioner. It was also claimed that the state law is practically a duplication of the federal law whereas it was the intent of Congress, according to the appellant, to merge state cooperation into cooperative enforcement of a unified, efficient Federal system under a Federal statute. The Maine secretary of agriculture in his concluding argument stated:

"The appellant's case is against the general system of state insecticide acts. It has selected Maine as the jurisdiction where it will raise the issue, but in the present proceeding before this court it is anticipating the proper time for the contest."

—o—

Editorials

(*From Page* 91)

deliberately slashes the price eight, ten, or twelve cents per gallon in retaliation in order to "show up" the other house, there can be little of reason or good sense in the business. Yet, this is being done every week. Prices have been taking their biggest cuts,—cuts which have brought many of them below cost of raw materials, not even considering manufacture or overhead,—as a result of somebody getting "sore." It may give plenty of personal satisfaction for the moment, but it is not going to put much in the way of profits in the bank account at the end of the year. Price cutting for retaliation has no place in any level-headed business organization.

This shoe probably fits a number of people right this minute. If it fits you, put it on,—and gather your good sense together again.

—o—

Spanish Essential Oils

(*From Page* 25)

mostly at high altitudes in the interior provinces. Medium quality is distilled in Granada, Teruel, North Jaén and Albacete. Inferior quality in Jaén, Murcia, Castellón, South Cuenca, North Almeria, i.e., mostly at lower altitudes in the provinces along the Eastern coast of Spain. Seventy and eighty centimos were paid this year for 1 arroba of plants as against sixty centimos last year. The total production of Oil of Spike Lavender in 1931 might be calculated at about 60,000 kilos this year against 140,000 kilos during 1930.

Oil of Rosemary: Main production of Rosemary Oil in Spain takes place in the Provinces of Albacete and Murcia. This oil has a very good odor but does not quite correspond to the requirements of the United States Pharmacopœia for Oil of Rosemary. Another producing centre of Oil of

Rosemary, much smaller, however, is in the Provinces of Granada and Jaén, the output constituting perhaps only 1/8 the total production of Spanish Oil Rosemary; these oils conform more closely with the U. S. P. specifications. The total production of Oil of Rosemary in Spain during 1931 can be calculated as about 85,000 kilos as compared with 110,000 kilos in 1930.

Oil of Pennyroyal: This oil which is distilled in the South of Spain in the Provinces of Cadiz and Huelva can be calculated as about 2,000 kilos whereas last year 10,000 kilos were produced. Sixty and eighty centimos per arroba of plant material was paid this year as compared with fifty centimos during previous years.

Oil of Thyme Red: Distilled from *Thymus vulgaris* in the Southeastern part of Spain, in the Provinces of Murcia and Almeria. These oils contain 42% to 60% phenols consisting almost entirely of thymol (phenol crystallizable). The drought in these regions during past season was very serious and instead of 12,000 kilos as produced in 1930 only 4,500 kilos were distilled in 1931.

Oil of Origanum Red: This oil is distilled in the South of Spain, principally in the Provinces of Huelva, Cadiz and Sevilla from *Thymus capitatus*. The pure oil contains about 63% to 72% phenols which consist almost entirely of carvacrol (phenol non-crystallizable). The plant cutters in this territory were very radical and demanded 1 peseta and even more for an arroba of plants instead of 50 and 60 centimos as in previous years. Therefore, only 4,000 kilos of oil were distilled during 1931 as compared with 23,000 kilos in 1930.

Regarding Oil of Thyme and Oil of Origanum,—it might be said that adulteration of these oils with synthetic carvacrol and synthetic thymol has become so common that honest distillers are practically forced to abandon distillation of these oils. Many oils on the market labeled Oil of Thyme or Oil of Origanum consist almost entirely of mixtures of synthetic thymol, synthetic carvacrol, thymen and Oil of Pine. The confusion existing among chemists relative to the purity of these oils is very pitiful. Pure Oils of Thyme and Origanum, although very powerful, leave upon drying, a delicate note of the living plant whereas oils cut down with synthetic phenols show at the end of evaporation a slight carbolic note. Aside from this they decolorize readily in white soap which is something that the pure oils either do not do at all or do only to a minute degree.

A FEW words about Spanish oils and their application in soap,—there is no doubt but that Spanish essential oils rank foremost among the valuable and economical ingredients for soap perfumes. It is surprising that Spanish oils have

(*Turn to Page* 115)

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fast to light, alkali, tin; soluble in all vegetable, animal and mineral oils, and waxes and organic solvents. Recommended for waxes, polishes, creams, emulsions and floor oils.

418 Olive Green	410 Orange	1112-RR Violet
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- **GREEN S-348 for Disinfectants. Water soluble. Fast to Cresylic and Phenol Compounds.**

Send for free samples.
Send for complete price list.

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Manufacturing Chemists—Importers—Exporters

53 PARK PLACE NEW YORK, N. Y.

In a report on research on kerosene extracts of pyrethrum, appearing in *Jour. Econ. Entomol.* 24, 763-4 (1931), it is stated that Tattersfield and Hobson's short acid method for the analysis of pyrethrin I gave reproducible results with various pyrethrum powders. The pyrethrin I content proved to be a reliable index of the insecticidal power of the kerosene extracts from these powders. Kerosene fractions vary greatly in their insecticidal effects upon the common house fly. A light fraction was much slower in speed of paralytic action and much less toxic in its final effect than a heavier fraction.

—o—

Jamaica with its abundance and diversity of insect life offers a steady demand for insecticides including fly sprays. There is no domestic manufacture of insecticides in Jamaica. While statistics covering the imports into Jamaica of fly sprays are not available, those for insecticides and vermin killers indicate that during 1929 the total imports were valued at $29,700 of which $13,800 were imported from the United Kingdom and $13,900 from the United States.

—o—

STATEMENT OF OWNERSHIP

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of Soap, published monthly at New York, N. Y., for Oct. 1, 1931.

State of New York, County of New York.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Grant A. Dorland, who, having been duly sworn according to law, deposes and says that he is the Business Manager of Soap and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, MacNair-Dorland Company, Inc., 136 Liberty St., N. Y. C.; Editor, Alan Porter Lee, 136 Liberty St., N. Y. C.; Managing Editor, None; Business Manager, Grant A. Dorland, 136 Liberty St., N. Y. C.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

MacNair-Dorland Co., Inc., 136 Liberty St., N. Y. C.; Ira P. MacNair, 136 Liberty St., N. Y. C.; Grant A. Dorland, 136 Liberty St., N. Y. C.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is ——. (This information is required from daily publications only.)

GRANT A. DORLAND.
Signature of Business Manager.

Sworn to and subscribed before me this 16th day of September, 1931. Al J. Ruggiero, Notary Public, Kings Co., No. 564, Reg. No. 3198; Cert. filed in N. Y. Co., No. 391, Reg. No. 3R269; Commission expires March 30th, 1933.

these sprayers are designed for HOUSEHOLD USE

LOWELL FLYER MIDGET

A low priced sprayer for household purposes. Can be packed in unit cartons with your insecticide. Made of heavy tin. Capacity about ¾ pint. Handles all solutions.

LOWELL JUNIOR CONTINUOUS

Small capacity continuous sprayer for household use. Designed for efficient handling of fly sprays and similar preparations. Made of heavy tin.

Send for Catalog

LOWELL SPRAYER COMPANY

Lowell, Mich.

Quality Sprayers Backed by 30 Years' Sprayer Building Experience

Spanish Essential Oils

(*From Page* 113)

not yet found wider application in some soap factories. After a thorough field study of several seasons right in the midst of the producing regions of Spain the writer carried out a long series of experiments in a special soap laboratory incorporating all grades and qualities of Spanish essential oils in soaps. The results were surprising. Spanish Oil of Spike Lavender gives extraordinary results and Spanish Oil of Rosemary even more remarkable results as long as they are pure. Spanish essential oils are so cheap that any further reductions in price require large additions of compounds which tend to dilute and destroy the original character, and the effect in the finished soap is lost. The difference in price of a pure and an adulterated Oil of Spike or Rosemary is only a few cents but these few cents make a great difference in the quality of the perfume in the finished cake of soap. In the selection of no other raw materials are the intelligent buyer and well-informed chemist afforded a better opportunity to display ability and sound judgment.

What is the outlook on Spanish essential oils for the future? We believe that as a result of the drought, increased wages, labor difficulties and reduced production, prices of Spanish essential oils should increase about 30%. Of course, certain other factors must be considered, too. England has always been a very heavy consumer of Spanish essential oils. Since England has gone off the gold standard its purchasing power has, at least temporarily, been crippled. On the other hand, England dropped the gold standard purposely and went on a course of controlled inflation in order to stimulate its export trade. Judging from late news, England's trade seems to be recuperating slowly. If the English soap industry succeeds in regaining its lost markets, especially in the Far East, there will be a healthy revival throughout the soap manufacturing industry in England and in turn an increased demand for Spanish essential oils on the part of England. Spain's exchange rate must also be taken into consideration. If it should, because of internal political disturbances, decrease, the increase in the cost of production of Spanish essential oils would be counteracted. But, if as is to be hoped, the peseta retains its value, we surely can expect higher prices for Spanish essential oils in the future.

Chemical Engineer, Soapmaker and factory superintendent. Experienced, boiled and cold made laundry soaps. Refining and bleaching of fats and oils. Three years in Spanish speaking country. Desires position. Address Box 828, care *Soap.*

A
FORMULA

A definite formula is followed in the designing of Hudson Sprayers. This formula involves the length and diameter of the pump. Another "ingredient" is the diameter and lift of the syphon tube. Still another is the gauge of the hole in the pump end. And there are many other factors.

But these are details. The important thing is that the Hudson formula was worked out largely from ideas and suggestions submitted by leading insecticide manufacturers, working in close harmony with Hudson engineers.

Such a formula, kept up to date and revised when revision means improvement, must be close to right. A sprayer, designed on that basis, for your particular insecticide, must be close to solving your problem.

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New York City Minneapolis, Minn. Omaha
San Francisco Philadelphia Kansas City, Mo.

War Affects Soy Bean Crushing in China

REPORTS from China state that the shipment of soy beans to the crushing centers has been seriously interfered with by the China-Japan hostilities in Manchuria. A continuation of the Manchurian troubles will mean a continued interference with the movement of all commodities into and out of the occupied areas. The production of soya bean oil in Manchuria is likely to be reduced materially or at least, subjected to considerable delay. Although the direct effect on the American market may not be great this year owing to the decreasing importance of Chinese bean oil in this market, it seems likely that there will be an indirect influence on the market position of American crushed bean oil with a possible further strengthening of prices in all markets.

—o—

Sunflower Oil Industry in Cuba

RECENTLY an American corporation at its Cuban plant has entered into the development of this product rather extensively. Under the direction of Dr. Leon Aisenstein (who prior to the Russian revolution was head of the Marconi corporation in that country, and who has for the last four and a half years been carrying on researches in Cuba in the development of the production of sunflower oil), the aforementioned American Company is investing between $600,000 and $750,000 in this project. About half of this amount is being expended upon buildings and equipment and the remainder in planting the first crop. As to the former, a complete new unit is being built, consisting of a crushing plant, a cleaning house, and a warehouse. All of the machinery for this unit was purchased in the United States. This machinery is of the very latest design, an outstanding example of which consists of a pneumatic machine for unloading the seed. This device cost approximately $20,000, and though requiring but one man to operate it can handle some 500 tons daily. Ability to handle this large amount is necessary, for though the contemplated production at first will be but ten tons of oil daily (to produce which about 40 tons of seed must be treated), the sunflower crop is a semi-annual one, and the warehouse must be stored with between 6,000 and 9,000 tons of seed or enough to supply the factory for the six months between harvesting of the crops. The length of the semi-annual periods of harvesting is about one month.

Approximately 9,000 acres have been planted in this first, or summer crop, the sowing of which lasted from about May 15th to June 20th. This crop should require approximately 95 days before it is ready to be reaped, and the next or winter crop, sowing of which will start in October, should take approximately 110 days to reach maturity. The same method, as is used for the planting of sugar cane, was employed in the sowing of this seed, all of which was imported from Russia through Germany. The seed was farmed out amongst small landowners, or colones, some 1,500 handling the first 9,000 acres. The next sowing will be larger, bringing the total acreage for this year to about 25,000 acres.

The purpose of the American Company in entering so extensively into this hitherto practically unexploited industry is not far to seek. In the first place, practically all the edible vegetable oils used in Cuba are imported and it is naturally desirable to endeavor to supply this profitable market with a nationally produced product. Also it has been proved scientifically that alternating sugar crops with other crops from time to time, is of enormous benefit to the fertility of the cane fields. The sunflower is especially well adapted to this. Further the climatic conditions of Cuba are excellent for sunflower development, and it offers a field of diversification in this hitherto one product country.

For the present the American Company contemplates only the development of its Cuban market. This it hopes chiefly to accomplish by selling sunflower oil at a price based upon the market price of prime summer yellow cotton seed oil plus the cost of freight to Cuba and a certain part of the difference due to improved quality. Since Cuba imports annually between $16,000,000 to $20,000,000 worth of vegetable oil compounds, hog lard, and cake for cattle feed, this is naturally a very desirable market. In addition to this the cattle industry of the island has always suffered from the lack of a high food value domestic cattle feed cake. If the American Company is able to supply this, the cattle industry as a whole will be greatly benefited, and a pressing need of the island filled. (*Report from Vice Consul Lyon, at Habana, Cuba.*

—o—

Large supplies of cocoanut and palm oils and low cost of labor make feasible the manufacture of soap in Java. The necessity of bathing several times a day in that country accounts for an appreciable consumption of this product. Purchases of the majority of natives are confined to native oils and low-priced brands.

Oil & Fat Section

A Section of SOAP devoted to the Technology and Chemistry of Oils, Fats, Waxes, Soaps, Glycerine, Etc.

Volume VII, No. 11 November, 1931

Will you

ACCEPT *the* VERDICT *of this* BLUE RIBBON JURY?

NO single group of men knows more about the business of purifying and deodorizing edible oil products than does the membership of the A. O. C. S.

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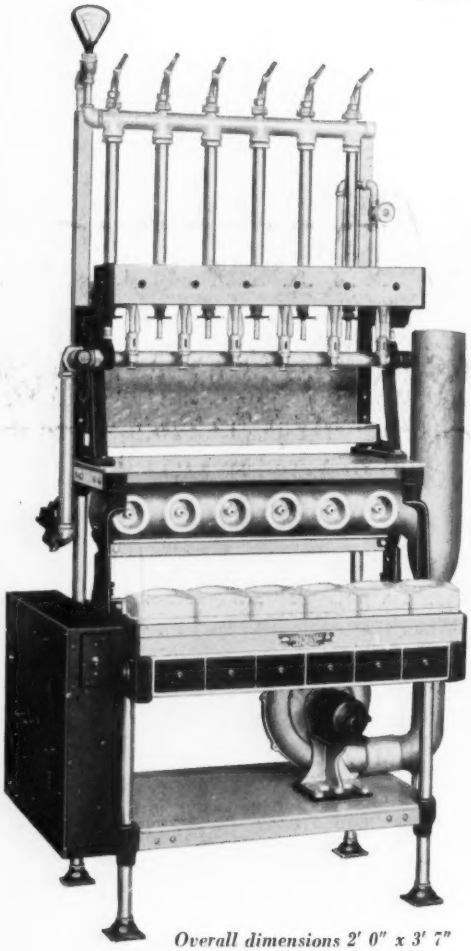

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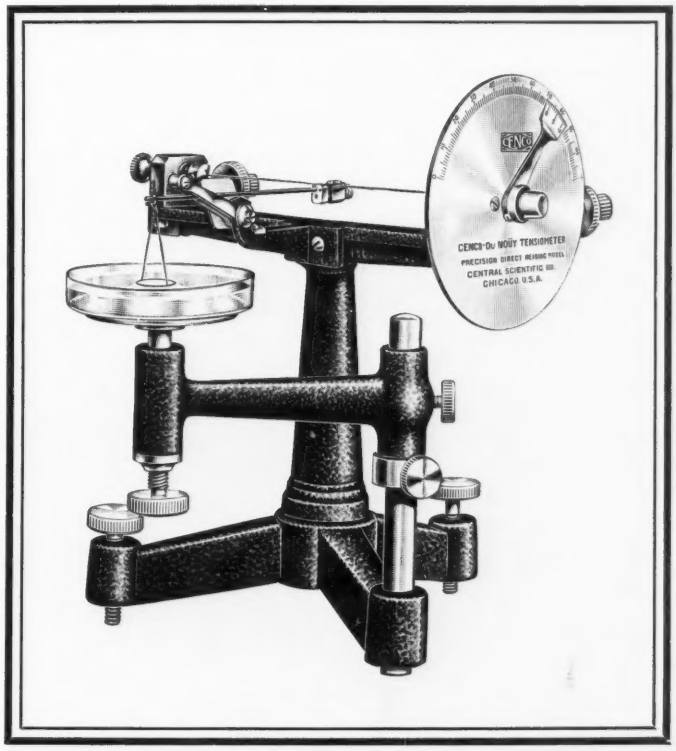

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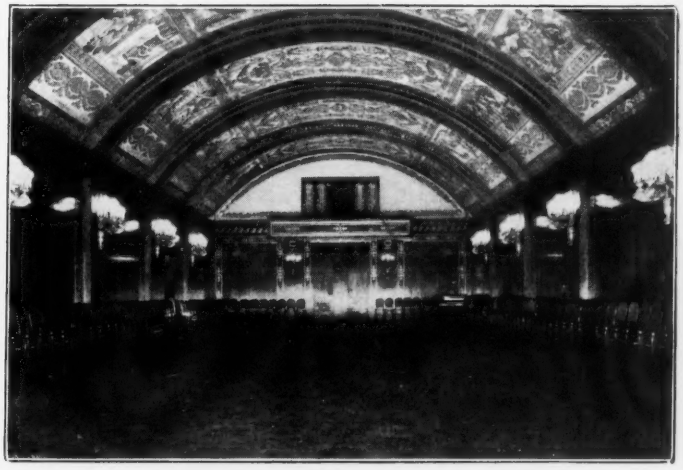
Oil & Fat Section

Oil Chemists' Fall Meeting at Chicago, October 29, 30

HELD the second year in succession at the Congress Hotel, Chicago, on October 29 and 30, the Annual Fall Meeting of the American Oil Chemists' Society, again surpassed all previous records for attendance at the sessions, number and enthusiasm of attendance, volume and standard of scientific and technical papers presented. The meetings were held in the Florentine Room of the hotel, which provided ample space for the attendance, as well as for the numerous exhibits of apparatus, equipment and supplies which were placed on display by manufacturers and supply houses.



Florentine Room, Congress Hotel, Chicago, Scene of Fifth Annual Fall Meeting American Oil Chemists' Society

The first day's session was presided over by Archibald Campbell, Vice-president and *Chairman* of the Soap Section, and was devoted chiefly to papers and committee reports having particular application to the chemistry and technology of soap, detergents and allied products. The meeting was opened by W. H. Irwin, *Chairman* of the Chicago Committee on Arrangements, who introduced Colonel Gaw, personal representative of Mayor Andrew J. Cermak of Chicago. Colonel Gaw delivered a warm address of welcome to the visiting delegates on behalf of the Mayor and City of Chicago. At the conclusion of Colonel Gaw's talk, President A. S. Richardson took the Chair, for a few words of welcome and appreciation to the visiting members and guests, after which the conduct of the meeting was relinquished to Vice-president Campbell, of the Soap Section.

The first business of the day consisted of the submission of reports by the chairmen of committees on Detergents, Glycerin Analysis and Soap Analysis. The report of the Glycerin Analysis Committee, submitted by M. L. Sheely on behalf of J. T. R. Andrews, *Chairman,* consisted of a brief progress report only, as the full report of the committee for the year will not be available until the time of the next Annual Meeting, to be held in May, 1932. Complete reports of each of their committees' recent activities were submitted by J. G. Vail, *Chairman* of the Detergents Committee and M. L. Sheely, *Chairman* of the Soap Analysis Committee.

AFTER reception of the committee reports, which were referred to the Committee on Uniform Methods and Planning, J. J. Vollertsen, *Chairman*, for consideration, the meeting turned with interest to the presentation of the day's scientific and technical papers. The papers presented included the following:

1. "Soap Phases," R. H. Ferguson, Procter & Gamble Co., Ivorydale, Ohio.
2. "Light Colored Saponified Fatty Acids," R. B. Trusler, Davies-Young Soap Company, Dayton, Ohio.
3. "Notes on Power Laundry Practice," C. E. Lennox, Swift & Company, Chicago, Ill.
4. "Studies in the Comparison of Detergents," W. H. Burkhart, Gold Dust Corporation.
5. "The Determination of Water in Soaps," A. K. Church, Lever Brothers Company.
6. "Activated Carbons, Their Production and Uses," J. Wrench, Industrial Chemical Sales, New York City.
7. "A New Method of Rendering," O. H. Wurster, Wurster-Sanger Company, Chicago, Ill.

At the conclusion of the first day's session, an informal luncheon was held in the Pine Room of the Congress Hotel. More than one hundred of those attending the sessions of the meeting were present at the luncheon, which was devoid of formal speechmaking, being devoted to renewal of acquaintances and informal conversation. This feature of the first day was repeated on the second day of the meeting.

After luncheon on the first day, a large party of members and guests journeyed by motor to Hammond, Indiana, at the invitation of Lever Brothers Company, to inspect that corporation's new $5,000,000 soap factory in that city. There those in the party had the privilege of viewing what is undoubtedly the most modern soap manufacturing establishment in this country, if not in the entire world. The plant is housed in several buildings of cream-colored brick, erected facing a beautifully-kept lawn, the entire property being surrounded by a wrought-iron fence, with entrance gateways in harmony with the building design.

THE visitors were conducted by specially appointed guides through the office, warehouses, steam boiler plant, oil refinery, water treatment and filtration plant, soap-kettle room, oil storage warehouse, soap drying department, flake soap packaging room and the chemical laboratory. Every feature of the plant has been designed with a view to economy and efficiency of operation. One of the most notable features was observed in the design of piping throughout the works in such manner that headroom and accessibility are nowhere impaired. The soap-kettle room in particular presented a most attractive appearance, the walls being finished in architects' tile of a soft buff color, and all overhead space being clear of piping of any sort.

Another particularly interesting feature of the plant is the use of air-conditioning equipment throughout the manufacturing departments, for the preservation of uniform temperatures and relative humidities regardless of weather conditions. The effect of the air-conditioning apparatus was most notable in the soap-boiling department, which, despite the absence of kettle-hoods was peculiarly free of the clouds of steam usually encountered in such locations. At the conclusion of the visit, each member and guest was presented with a souvenir box of soaps and toilet articles, with the compliments of Lever Brothers Company.

The second session of the meeting convened at 10:00 A.M. on Friday, October 30, with President Richardson in the chair. This day of the meeting marked the presentation of papers particularly relevant to the processing of edible oils and fats. The papers offered included the following:

PAPERS

1. "Changes in Edible Oils and Fats Due to Atmospheric Oxidation," H. Aspegren, Norfolk Research Corporation, Norfolk, Va.

2. "A Process for Refining and Deodorizing Oils," V. Conquest, Armour & Company, Chicago, Ill.

3. "Oils and Fats as Food for Mammals and Micro-organisms," L. B. Jensen, Swift & Company, Chicago, Ill.

4. "Some Observations on Oil Refining in Europe," R. W. Perry, William Davies Co., Chicago, Ill.

5. "Feed Control and Some Recent Developments," H. A. Halvorson, Minnesota State Department of Agriculture, St. Paul, Minn.

6. "The Significance of the Recent Rapid Growth in Whale Oil Production," R. W. Harrison, Bureau of Fisheries, Gloucester, Mass.

7. "The Technology of Whale Oil," A. P. Lee, MacNair-Dorland Co., New York, and H. P. Trevithick, Bureau of Chemistry, New York.

8. "Commercial Aspects of the Uses of Sunflower Seed Oil, Sesame Oil, and Soya Bean Oil," G. G. Fox, Armour & Company, Chicago.

9. "Mayonnaise Oils, Mayonnaise, and the Kreis Test," A. G. Olson, General Foods Corporation, and C. A. Southwick, Jr., General Foods Corporation.

10. "Peroxide Formation as a Measure of the Autoxidative Deterioration of Vegetable Oils," D. H. Wheeler, Mayonnaise Manufacturers Association.

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Significance of RECENT RAPID GROWTH IN WHALE OIL PRODUCTION

By R. W. HARRISON*

Associate Technologist, U. S. Bureau of Fisheries

DURING the past several years we have witnessed a rapid expansion in whaling activities throughout the Antarctic regions, and a phenomenal growth in the production of whale oil. This development should be of pertinent interest to members of an organization such as the American Oil Chemists' Society because of its possible influence on the market for the materials with which you are closely associated, and because this development indicates, in no small way, the influence of the work of the oil chemist in industry.

It is generally recognized that improvements in modern whaling methods and the exploitation of new whaling grounds has made physically possible the taking of a greater number of whales, but I wonder if sufficient monetary incentive would have existed to warrant such developments had it not been for the development of new uses for whale products. This marketing need, therefore, was supplied by the oil chemist who, applying the principles of catalytic chemistry to certain classes of oils, developed the process of oil hydrogenation.[1] The value of this work has been more firmly established by the various oil technicians who have since improved on past processes and have discovered new uses for these hardened products. I mention this relationship of the oil chemist to the expansion in whaling activities because so little consideration is ordinarily given to it in the many wrtings concerning 20th century whaling.

Whales have been sought by man for over 1,000 years on account of the valuable products readily obtained from them. These products have been, primarily, whale oil and whale bone or baleen.[2] Whale meat has never been much in demand for edible purposes except possibly in Japan. At one time whales' tongues are said to have been considered a delicacy. From the beginning of the industry until the middle of the 19th century, the oil and baleen may be considered as having been of similar importance commercially, since both were in great demand. Whale oil was used primarily as an illuminant, sperm oil (the oil obtained from the blubber and head of the sperm whale) was used in candle making on account of its high wax content, and the baleen played an integral part in feminine attire. Due to the lightness, elasticity and flexibility of this material, it was used widely in the manufacture of corset stays, ruffled collar braces, skirt hoops and for making ornaments. About 1850 the utility of whale oil suffered a serious set-back. Petroleum was discovered in the United States, and its distillation products, due to their lower production costs, quickly replaced whale oil for illuminating purposes. Had it not been for the utility of baleen, whaling activities would, no doubt, have experienced a notable decline. As it was, American whalers, the principal whalers of this period, remained active until 1871, when tragedy befell the fleet then operating in Arctic waters. Practically the entire fleet was destroyed by ice. This tremendous loss of men and craft was followed by the substitution of steel for whale bone in the manufacture of corsets and other feminine attire, which acted as a final blow to the American industry.

Shortly after the beginning of the 20th century a new type of usefulness for whale products was recognized. Chemists had learned the manner of converting whale oil into a hardened fat. Later the World War created a demand for glycerine, and the oil chemist again had an important part in pointing out the utility of the oil. Interest in whaling activities was agan aroused and after a period of over half a century, whale oil returned as a valuable product of commerce. Concurrent with the changes in the utility of whale products, notable improvements in whaling methods have been made. Prior to 1864 whalers fished in row boats from a mother ship, using a harpoon thrown by hand. This was a dangerous task and,

[1] Hydrogenation is a process whereby hydrogen gas is caused to combine with unsaturated fatty oils to convert them into solid fats.

[2] Whale bone is not the bone of whales, as might be guessed from its name, but is the strainer-like appendage, consisting of several hundred horny-like elastic slabs or plates, which are attached to each side of the upper jaw of certain species of whales.

* Before Fall Meeting, American Oil Chemists' Society, Chicago, October, 1931.

at the best, quite inefficient. Whaling was restricted to slow-moving whales and the species of whales which did not sink after death. This was essential since the row boat made little speed and could not be equipped to raise a mammoth whale which had sunk to the bottom during the death struggle. A new era in whaling methods was inaugurated when in 1864 the harpoon gun was invented. This equipment could be operated from the bow of steam-driven whale hunters, thus giving a much greater advantage of speed and safety to the whaler. As a result, fast swimming whales were made available for catching, and the species of whales which sank after death could be raised and inflated with air by machinery operated on the boat.

ON account of the ability of the boats equipped with harpoon guns to kill a greater number of whales, the practice of establishing shore stations came into existence. The killer boats could put out to sea, make their catch of whales, and then tow them to the shore factories. The factories could be made as large as necessary and, further, permitted quite efficient utilization of the carcass. This method of whaling is still practiced in many localities. As whales became scarce in localities in which shore stations could be situated, enterprising Norwegian whalers began investigating the possibility of utilizing large floating factory ships, equipped with rendering machinery and storage space. This had led to the most modern method of whaling. These factory ships have been developed to a high state of mechanical efficiency and are rapidly replacing shore stations. At first the whales were flensed alongside the mother ship, but the later boats are so equipped that the whale may be drawn through an opening in the stern of the ship and be flensed on board.

One vessel commissioned several years ago was of 12,440 dead-weight tons and had a storage capacity of two and one-quarter million gallons; another of 17,550 dead-weight tons was capable of carrying three and one-quarter million gallons. Recently I saw a picture of a new Norwegian whaler which, I would judge, must have a storage capacity of at least five to six million gallons of oil. During the past whaling season one whaler was reported to have manufactured 27,000 barrels of oil during a period of 13 days. This amounts to 1,350,000 gallons, or an average of over 100,000 gallons a day. When operating at such a rate it is apparent that the storage capacity of a floating whaler might soon be filled. For this reason the more recent additions to the whaling fleet are transport boats which operate out of the active whaling districts.

The recent expansion in whale oil production, with which we are interested, actually began in 1923 when the first commercial whaling expedition entered the Antarctic regions, which have been more recently familiarized to us by the expedition of Admiral Byrd.[3] From the standpoint of oil production the venture was not a success, but on the basis of the developments during the succeeding years it opened the way to new fields of endeavor which have proved the operating basis of this present great industry. The significance of Antarctic whaling operations may best be shown by consideration of the following statistics which were taken from the publication "International Whaling Statistics," published in Oslo, Norway, 1930.

During the whaling season of 1919-20 the world production of whale oil amounted to only 152,744,000 pounds. Of this amount 67% of the total came from the Antarctic; 12% from off the coast of Africa; 9% from the North Atlantic and Arctic areas; 10% from the North Pacific; and the remaining 2% from areas off the coasts of Chile, Peru, Japan and Korea. During the season of 1923 and 24 when the whaler Sir James Clark Ross made its initial trip to the Ross Sea, the world production amounted to 268,590,000 pounds, 65% of which came from the Antarctic. It is evident therefore that until this expedition the relative importance of the Antarctic region had not increased.[4]

By the season of 1927 and 28 the world production of whale oil had grown to 494,735,000 pounds. Of this amount 79% came from the Antarctic. During the season of 1928-29, statistics show a production of 700,443,000 pounds, and during 1929-30, 1,081,613,000 pounds. Of this latter amount 89% came from the Antarctic. The final data on the past, or 1930-31 season, are not as yet complete, but figures supplied by Mr. E. L. Thomas of the Bureau of Foreign and Domestic Commerce, and Dr. Remington Kellog of the Smithsonian Institution, indicate that approximately 1,474,000,000 pounds of oil had been manufactured. Of this amount 1,350,000,000 pounds or nearly 92% were reported as being from the Antarctic areas.

CONSIDERATION of these data show that during the space of only 12 years this amazing industry has raised its production from 152,744,000 to 1,474,000,000 pounds, an amount

[3] The whaler Sir James Clark Ross, under the guidance of Capt. Carl A. Larsen, sailed from Hobart, Tasmania, on November 29th of that year, bound for the Ross Sea. This floating factory carried on whaling operations both in the Ross Sea and in the Bay of Whales, and manufactured during the season 873,000 gallons of oil.

[4] Prior to the 1923-24 season, the Antarctic whaling area included South Georgia and South Shetland only. Since that year the data for the Antarctic region includes, in addition, South Orkney, the Ross Sea, and the west Antarctic region.

nearly 10 times greater and, as shown by the data, the increase may be attributed almost entirely to the activities in the Antarctic regions where the Norwegian whalers predominate. It is estimated that Norway manufactures about 60% of the total, England about 30%, and the remaining 10% is supplied in varying amounts by a number of countries having relatively unimportant whaling fleets. Our annual domestic production of less than 12,000,000 pounds is now practically infinitesimal in such a large total. Under present operating methods over 90% of the total quantity manufactured is reported as being a No. 1 oil.

Because of the tremendous increase in whale oil production during these past few years, whale oil has become a very important factor in the world supply of fats and oils. According to data obtained from the Bureau of Foreign and Domestic Commerce, which are based on existing sources of information on apparent resources, the world's available supply of fats and oils during the year for which the latest statistics are at hand, amounted to 28,623,000,000 pounds. Of this amount 17,424,000,000 pounds were vegetable oils; 9,541,000,000 pounds were animal oils and fats; 211,000,000 pounds were fish oils; and 1,474,000,000 pounds were whale oil. Thus, whale oil amounted to approximately 5% of the total.

When one considers the great number of the different fats and oils which go to make up the total supply of these materials, any one which in itself represents 5% of the total is an increment of decided importance. In order that we appreciate this further, I shall quote production statistics on some of the more important fatty materials with which most of you, I should judge, will be more familiar. During the latest year for which data are available, the world production of these fats and oils has been calculated as follows: butter 6,392,000,000 pounds; cottonseed oil 3,730,000,000 pounds; linseed oil 3,014,000,000 pounds; peanut oil 2,810,000,000 pounds; lard 1,908,000,000 pounds; coconut oil 1,772,000,000 pounds; tallow 653,000,000 pounds; sesame oil 635,000,000 pounds; palm kernel oil 556,000,000 pounds; and palm oil 532,000,000. In comparison with the above data, we find that the production of whale oil during the season of 1930-31 was equivalent to 23% of the world production of butter; 39% of the world production of cottonseed oil; 49% of the world production of linseed oil; 52% of the world production of peanut oil; 67% of the world production of lard; 83% of the world production of coconut oil; and, further, was 2.2 times greater than the world production of tallow; 2.3 times greater than the world production of sesame oil; 2.6 times greater than the world production of palm kernel oil; and 2.8 times greater than the world production of palm oil. From this it would be readily apparent why whale oil has become a factor attracting attention in the world fat and oil market.

Although whale oil finds a variety of uses, I feel that it is sufficient to mention only two, because the bulk of the oil enters consumption through them. These are (1) use in the manufacture of margarines and lard substitutes, and (2) use in the manufacture of soaps. Owing to the fact that the United States is a large producer of edible fats (for example, producing approximately 30% of the world's supply of butter and slightly less than 85% of the world's supply of lard) and, in addition, produces great quantities of edible oils which are capable of being converted into edible fats, domestic food industries have not been forced through necessity due to shortage to search widely for a supply of edible fatty materials. Further, on account of our domestic supply of supplementary oils being essentially of vegetable origin, and due to a general lack of appreciation of the value of oils of marine origin, vegetable oils have acquired a prestige not associated with marine animal oils. For these reasons, therefore, the United States has never become a large consumer of whale oil for other use than in the manufacture of soap.

THE consumption of whale oil in the manufacture of soap in the United States did not take on quantitative proportions until after 1921. The sudden interest in this product and American fish oils as well, has been attributed to a high tariff which was placed on soy bean oil. Domestic production of whale oil during recent years has been small and rather constant, varying between 7,000,000 pounds to about 12,000,000 pounds annually. Imports of whale oil, therefore, may be used to show its increasing importance in our domestic soap fat market. In 1921 whale oil imports amounted to only 2,750,000 pounds. In 1922, after the tariff revision, imports jumped to 32,000,000 pounds. Since 1922 there has been a general increase to a new height of 57,000,000 pounds in 1929. Actually, however, more whale oil was landed in American ports during 1930 than for any previous year. Approximately 75,000,000 pounds were placed in bonded warehouses, but only slightly over 55,000,000 pounds were withdrawn for consumption. In 1929 whale oil represented about 5% of the total quantity of fats consumed by our soap industry and constituted 60% of the quantity of marine animal oils consumed. A fat or oil which is used extensively in the manufacture of both edible fats and soap products is competitive in a varying degree with practically all fats, since the variety utilized by these great consuming industries is large. Further,

the scarcity or abundance of one of these materials, once it has become an established source of raw material, reflects a certain influence on the market for competing fats as well as for itself.

Prior to 1928 the consuming industries of the world had gradually built up a market for as much as 500,000,000 pounds of whale oil annually. Then, during the space of only three years, the available supply jumped to 1,474,000,000 pounds for an increase of approximately 1,000,000,000 pounds, or an average increase of 300,000,000 pounds per year. Data on consumption of fats and oils in the United States as published by the Bureau of the Census, when compared to the data on world production given previously, indicate that we consume approximately 20% of the world's supply of these materials. Further data from the Bureau of Census show that the total domestic consumption of fats and oils in 1928 was 250,000,000 pounds greater than that for 1927. Consumption in 1929 was but slightly over 150,000,000 pounds greater than for 1928, and during 1930 was approximately 300,000,000 pounds less than for 1929.

If the trend in the quantitative consumption of fats and oils in the United States is representative in any way of world trends, it would seem that under normal conditions the large increase in the world supply of whale oil might have been handled by the consuming industries. This is substantiated by the fact that whalers prospered and more capital was invested in the industry. However, for some reason which I cannot explain, the whaling industry continued to expand its activities in the face of a world-wide curtailment in fat and oil consumption which began during 1929. It would be difficult to obtain a measure of the effect of whale oil on the present world markets, because the markets for all materials are upset due to the general unsettled economic condition throughout the world. Further, the trade in fats and oils is a most complex problem and all of these materials are exerting an influence of some nature. For these reasons I prefer only to make several observations of effects which may be associated with the increased supply of whale oil.

The existence of a large surplus of one or more fats affects the marketability of these products as well as the materials interchangeable with them. Whale oil is at present available in quantities much in excess of the demand and accordingly has decreased in value. The price of whale oil is now about 17 cents per gallon, as compared to the fairly uniform price of 40 to 45 cents per gallon for the past several years. In view of the quantity of whale oil available for consumption, the price of many fats for which it may be substituted in the manufacture of lard substitutes, margarines and soaps, must remain at a similar level in order to continue in competition. It is reasonable to believe that while several years ago the price of whale oil was influenced by the price of certain animal fats, the price of these same materials is now being influenced by the price of whale oil. Certain European countries, notably Germany, the United Kingdom and the Netherlands consume large quantities of whale oil. Germany and the Netherlands consume the oil in the manufacture of edible fats. The United Kingdom, on the other hand, prefers vegetable fats to marine oils for edible purposes and consumes the bulk of its whale oil in the manufacture of soaps.

IT so happens that the three above-mentioned countries provide the principal market for our exportable surplus of edible animal fats. In view of the abundance of whale oil a logical deduction would be that these countries would increase their consumption of whale oil at the expense of higher priced fats. That is to say, Germany and the Netherlands would substitute whale oil for edible animal fats, and the United Kingdom would substitute whale oil for other types of higher priced soap fats. Thus the United States, which is the chief exporter of edible animal fats, should experience decreasing markets in Germany and the Netherlands, while our markets for edible fats in the United Kingdom would not be greatly affected. The fact that this deduction is substantiated by data on exports indicates further that the activity of the whaler should be a matter of interest to American fat industries. Our export of edible animal fats to Germany, Netherlands and the United Kingdom amounts to approximately 65% to 70% of our total exports of these materials. The most important item is represented by lard, which itself amounts to 60%. Inasmuch as lard predominates to such an extent I have assembled data on it alone for consideration. Further, since Germany and the Netherlands import whale oil for edible use, and the United Kingdom imports it for use in soap, I have segregated the data for the first two from the data for the latter.

In 1921 Germany and the Netherlands imported 314,357,939 pounds of lard from the United States, while the United Kingdom imported 280,506,788 pounds. The total exports of all edible animal fats from the United States for that year amounted to 803,000,000 pounds. In 1925 our exports of lard to Germany and the Netherlands amounted to 239,101,526 pounds, to the United Kingdom 218,493,221 pounds, and our total exports of all edible animal fats to all countries amounted to 708,000,000 pounds. In

1929 exports of lard to the Netherlands and Germany amounted to 268,836,144 pounds, to the United Kingdom 245,242,204 pounds, and total exports amounted to 852,000,000 pounds. In 1930 our total exports dropped to 662,000,000. Lard exports to Germany and the Netherlands dropped to 152,985,187 pounds, while lard exports to the United Kingdom remained practically constant, amounting to 240,817,445 pounds. Consideration of these data show that lard exports to Germany and the Netherlands amounted to 39% of our total exports of edible fats in 1921, 34% in 1925, 31% in 1929 and 23% in 1930. On the other hand, lard exports to the United Kingdom amounted to 35% in 1921, 31% in 1925, 29% in 1929 and 36% in 1930. This would indicate that our edible fats are losing ground in countries that consume whale oil for edible purposes. This is demonstrated further when it is realized that the decrease in lard exports to Germany and the Netherlands between 1929 and 1930 amounted to 61% of our total decrease in exports of edible fats, as compared to only a 2% decrease in our trade to the United Kingdom. The chaotic financial condition in Germany has no doubt decreased its ability to purchase our edible fats. Further the hog population of these countries is no doubt increasing and other oils are becoming increasingly competitive, but, nevertheless, it seems evident that we must face the realization that whale oil is replacing domestic edible animal fats in foreign markets.

In addition to the effect domestic fat producers may be expected to experience on account of decreases in export markets, the increasing importation of whale oil is also making itself felt in domestic markets. As stated previously, from 50,000,000 to 60,000,000 pounds of whale oil are now being consumed annually. I do not know the attitude of the producers of inedible animal fats, but domestic fish oil and whale oil producers associate the importation of whale oil with the marketing difficulties they have encountered during recent years. The recent price quotations on tallow and greases would indicate that the producers of these materials would be of the same opinion. In the case of the fish oil people, the evidence points to a decreased market as well as a decrease in the utility of their product. The holdover stocks of these materials have become so large that unless some improvement is experienced, the fish oil industry will have to curtail its production or find foreign markets.

We see occasional mention of the possibility of the introduction of whale oil into edible fats in this country. In view of our large production of edible fats and oils and especially in the face of prevailing conditions, such a move would lead only to increasing the difficulties of the domestic producer of edible fats and oils. If the time comes when there appears a need for supplementing our edible fat supply with marine animal oil, I suggest that you give first consideration to the products of our domestic industries. In view of the data supplied in the preceding pages, it is not surprising that the whaling industry is in a rather uncertain situation. Large stocks are on hand and oil values are claimed to be considerably below production cost. In order to strengthen the market I understand that some of the large companies have received financial assistance which will permit them to store their product, awaiting better market conditions. Further, it has been the general impression that whaling activities would be discontinued for the 1931-32 season. More recent information, however, indicates that two English concerns will send boats to the Antarctic. This may affect the previous decision of Norwegian whalers not to catch whales in the Antarctic this year.

THE future of the whaling industry, of course, depends upon the abundance of raw material. According to many biologists familiar with whaling, the present rate of whale killing may be expected to lead to the ultimate destruction of the present whale supply. This possibility was very ably pointed out in a recent paper read before the 11th Annual Meeting of the American Society of Mammalogists, by Dr. Remington Kellogg of the Smithsonian Institution. Dr. Kellogg, who is an internationally known authority on whaling, discussed present whaling activities as "The last phase in the History of Whaling" because the Antarctic provides the last explored area where whales abound in numbers sufficiently large to warrant an industry of any proportions. The history of whaling discloses the rise, climax and decline of whaling in many areas. We are now witnessing the rise and possibly the climax of the last known area. In every case the species of whale which provided the basis of each respective field has never shown any marked recovery in abundance, even though there have been long periods when there was no search made for them. Further, the decline of each field has caused repeated financial loss to the industry. Should history repeat itself again, as it invariably has in the past, the depletion of the present active area would lead to hardship in most every quarter. Besides the financial loss to the industry and the world loss of a natural resource, oil and fat industries would be deprived of a source of fat to which they had become accustomed.

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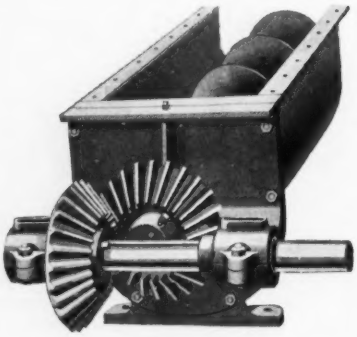

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Sunflower, Sesame, Soybean Oils—

Commercial Aspects of Their Growing Use for Food and Paint Purposes in the United States

By G. G. Fox*

Manager Refinery Department, Armour & Co.

IN order that we may approach the subject matter "COMMERCIAL ASPECTS OF THE USE OF SUNFLOWER OIL, SESAME OIL AND SOY BEAN OIL," let us briefly review the development of the shortening and edible oil industry over the past forty years to give us a background for the application of these vegetable oils. In the early eighties a feeble effort was made to utilize American cottonseed oil in blend with lard, and immediately a very considerable problem was placed before the chemist and engineer, how to properly prepare cottonseed oil for edible purposes. Shortly after this first effort to blend with lard, came the development of a lard substitute, wherein cotton oil was mixed with harder fats of beef or mutton, giving an outlet for commodities of the packing house.

During the few years which were to follow, packers introduced lard substitute as an outlet for their beef fats, and during these years all the talent in the industry was called upon to devise methods and equipment for the bleaching and deodorization of cotton oil to remove the pungent taste and odor. Beginning with the shallow bleaching tanks where thin layers of oil were exposed to the sun rays, and passing into the use of bleaching agents to subsequent clarification by means of improved filter presses, and beginning with the scouring of refined cotton oil with saturated steam and passing into the present day up to date high-vacuum deodorizers with proper temperature control, we have seen a tremendous improvement in the quality of this great American product, cottonseed oil.

Then we reach perhaps the greatest development of the refining industry, that of the hydrogenation process, and, finally, with some very efficient advertising and sales development, the popularity of various brands of shortening and oil from vegetable oil base. During these years the edible oil refiner and shortening manufacturer has developed a consuming demand for vegetable shortening, which, without a doubt, has greatly stimulated cotton production in the United States, and we find a domestic demand sufficiently great to consume approximately the entire production of cottonseed oil in this country.

The crop of cotton oil is roughly estimated at one and one-half billion pounds, of which some one billion two hundred million pounds are consumed in vegetable shortening and edible oils. The tariff regulations have been so adjusted to protect this big home crop, that very little interest has developed since the war in respect to the use of other vegetable oils in this country, but during the current year the refiner has been faced with experiences which have not come to him heretofore, among them the introduction and sale of other vegetable oils. So we come to the consideration of:

Sunflower Oil

THE botanist tells us that the sunflower is a native of Mexico and Peru, but is cultivated in other countries, notably Russia, Bulgaria and Rumania. That the cultivated sunflower grows to a height of fifteen to twenty feet; that the flower measures from one to two feet in diameter and that the seeds, when crushed, yield from 28 to 30 per cent of oil on a practical scale. The Russian seeds yield only 23 per cent of oil and the cake contains from 8 to 10 per cent of oil.

The seeds are said to be used in a large way as food for cage birds. The cake, owing to its digestibility and fattening properties, is valuable cattle food, comparable in this respect with linseed cake. Attempts have been made in the United States to grow the sunflower for commercial purposes, but have not proved satisfactory. The cold drawn oil is clear and limpid. The hot pressed oil dissolves considerable quantities of mucilaginous substances which separate out on cooling; hence, the hot pressed oil, if utilized for burning purposes, must be refined, and the refining process consists of treating the oil with sulphuric acid.

* Before Fall Meeting American Oil Chemists' Society, Chicago, October, 1931.

It is unofficially reported that the production of sunflower seed has gradually increased in Russia over the past several years, until it has reached considerable proportions, and it is reported that during the year 1930 about 350,000 long tons of sunflower oil were produced in Russia, and it is likewise reported that no sizable quantity of sunflower oil has been exported from Russia prior to this year, when approximately 15,000 long tons were sold and shipped by the Soviet government from Black Sea points to Rotterdam, where the cargoes were surveyed, sampled, tested and loaded in tank steamers for the United States, arriving in New Orleans during the past spring, and were discharged to different refiners.

THERE is not a great deal of authentic information concerning the experiences of the refiners using sunflower oil, except that the reports were quite universal that the oil was of pale yellow color, refined by caustic treatment with a very low refining loss, approximately 3 per cent; that the bleached oil was extremely light in color, and the oil was used largely in blend with cottonseed oil for the manufacture of vegetable shortening. To some extent it was hydrogenated and seemed to work very nicely in that channel of outlet. Then, too, some quantities were used in winter oil, inasmuch as it seems to be a very natural oil for this purpose.

We find that sunflower oil has a gravity of 0.924; an iodine number ranging from 118 to 133; saponification 188 to 190, whereas cottonseed oil has an iodine number of about 108; saponification value of 195. Sunflower oil is classified as a drying oil; therefore, might very properly cause some concern on the part of the shortening manufacturer, but since the quantities used this past year moved quickly into process, and likewise into consumption, there seem to have been no ill effects from this condition.

The importation and use of sunflower oil stimulated considerable interest in the Balkan countries and it was expected that sizable quantities would be offered for sale this coming winter, but because of the decline in price of cottonseed oil this year compared with last, there is not much attraction to the foreign seller of sunflower oil, and there is not sufficient difference in value to attract the domestic buyer.

Sesame Oil

WITH Sesame Oil we have a different aspect. Here we find an oil from the sesame seed, which is grown in large quantities in India, and is graded as to color into white or yellow seeds, and into the red, brown, or black varieties, known as the dark seeds. The white seeds yield the best oil; the dark seeds the largest proportion of oil, and in commerce, a mixture of the seeds is marketed.

Of course, sesame oil has been a well known commercial product in Europe for many years, and we learn that sesame seed has been grown to some extent in the United States, but we do not find that oil met with any great commercial interest until the past year, during which time a considerable quantity of sesame seed was brought into the Pacific Coast, free of duty, and crushed in the cold press mills of California, where copra had formerly been crushed for coconut oil. Importations for 1930 were 27,800 tons of sesame seed, of 2,000 pounds each, and this year 68,200 tons up to September 30th of the calendar year.

Some of the records inform us that the yield of sesame seed ranges from 1,000 to 1,100 pounds per acre, and the yield of oil in the seeds is approximately 50%; the sale of cake during this past season has been rather difficult. Some of the crushers of cottonseed have undertaken the handling of sesame seed in hydraulic presses, without success. The meal market in Los Angeles has been about $24.00 per ton, basis 40% protein and 8% fat.

CONSIDERABLE quantities of sesame oil from the Pacific Coast crush have found their way into the vegetable shortening industry and for use in edible oils, but, in the processing of the oil, some very interesting developments have turned up, and reading from the reports of certain refiners, we find that the average refining loss was between 4 and 5%; the color about 4.5 red, and while the oil is readily bleachable, the bleached color is unstable. This lack of stability manifests a pinkish color either in the oil or the shortening in which it may be a constituent part.

This color develops between the filter press and the deodorizing tank—the color reading running from 2.5 red up to 15 red, and back down to the original color before deodorization is completed. Frequently the color develops in the finished product. It is also a matter of record that winter oil pressers undertaking to blend quantities of sesame oil with cotton oil and subsequently using the blend for mayonnaise, have encountered this same discoloration immediately the blend comes in contact with the spices and sugar of the mayonnaise emulsion. Where the oil is used for hydrogenating, saturation proceeds normally and a fat of 62 litre is obtained, but again the color of this stearine is very unstable. It will increase from 2 red when flaking to 8 or 10 red, or higher, when standing exposed to the air. Some refiners report several efforts in the refining process to arrest this color development, with some success. Others find that the material re-

sponsible for the darkening is precipitated by protein precipitants.

One very prominent refining chemist reported on this reaction, declaring the discoloration to be due to oxidation at higher temperatures; that is, temperatures still below the boiling point of water—mentioning the peculiarity of the increased color being only temporary, for which no definite explanation could be given. He further states that the discoloration, no doubt, is due to oxidation. The oxides may be further oxidized to peroxides, which may be colorless, or the oxides or peroxides may easily give off oxygen to unsaturated compounds in the oil. He believes that the discoloration is closely connected with the compounds which give the Badouin reaction, some of these compounds containing phenol groups which are very sensitive towards oxygen.

THE COMPOSITION AND CHARACTERISTICS OF SOME FATS AND OILS

By G. S. JAMIESON and W. P. BAUGHMAN

Glycerides of Saturated Fatty Acids	Cottonseed Oil	Corn Oil	Sunflower Seed Oil	Soya Bean Oil	Sesame Oil
Myristic	0.3	..	..	..	..
Palmitic	20.0	7.7	3.5	6.8	7.7
Stearic	2.0	3.5	2.9	4.4	4.6
Arachidic	0.6	0.4	0.6	0.7	0.4
Lignoceric	..	0.2	0.4	0.1	0.04
Glycerides of Unsaturated Fatty Acids					
Oleic	35.2	45.4	33.4	33.4	48.1
Linolic	41.7	40.9	57.5	51.5	36.8
Linolenic	..	..	..	2.3	..
Unsaponifiable	0.9	1.7	1.2	0.6	1.7
Specific Gravity (255°C)	0.9174	0.9185	0.9193	0.9203	0.9187
Saponification Value	195.0	187.3	188.0	189.5	189.3
Iodine No.	108.2	117.3	130.8	128.0	110.8
Refractive Index (200°C)	1.4725	1.4717	1.4736	1.4736	1.4731

Soy Bean Oil

NOW, finally, we come to soy bean oil, which was experimented with in a commercial way quite extensively during the war, but since the readjustment of the tariffs the soy bean development has been almost exclusively from the domestic beans. Here we find a highly organized group of soy bean growers operating principally in the states of Illinois, Indiana, Iowa, Michigan and Ohio.

We are all more or less familiar with the soy bean, so we will not go into the origin or development of the plant, except to say that a tremendous amount of research work has been done in this country in respect to the adaptation of the soy bean to various climates. There are some ninety different varieties of soy bean plants designed to meet every climatic growing condition which obtains in the United States. During the year 1930 the production of soy beans in this country was nearly thirteen million bushels, of which five and a half million bushels were grown in Illinois. It is estimated that about four million two hundred thousand bushels were marketed for manufacturing purposes, the balance being plowed under, whereas in 1931 the government estimates five and a half million bushels will be marketed.

The unit of operation with the soy bean miller is 41 bushels of sixty pounds each which produce 360 pounds of oil and 2,000 pounds of meal, the meal having 43 per cent protein, fat content 4 per cent with a value of $15.00 per ton; working charges estimated to be $7.60 per 41 bushels of beans crushed. Under the influences of higher prices which existed for linseed oil last year, some domestic soy bean oil was sold at approximately 6c per pound at the mills in Illinois for the paint trade. It appears that the paint trade can only use a small amount of soy bean oil, relatively, in conjunction with linseed oil, and the demand for this soy bean oil from that trade was sufficient to absorb over one-third of the production. With this price level for oil, considerable quantities of domestic soy beans were contracted for by the crushers, but being unable to dispose of the oil to the paint trade, a large quantity was sold to the edible oil refiners to be used in conjunction with cottonseed oil in the manufacture of shortening and finished oils.

No outstanding developments seem to be reported except that the domestic variety of soy bean oil reflects an improvement in quality over the oil formerly imported from the Orient and used during the war,—the refining loss ranging from 5 per cent down. The refined, deodorized oil still carries the characteristic taste which some refer to as "painty."

The planting of soy beans this year, largely because of the belief in the future for soybean oil, is estimated to be about 22 per cent over the acreage of last year. Of course, a considerable portion of the crop is not harvested for commercial use, the remainder being used for ensilage.

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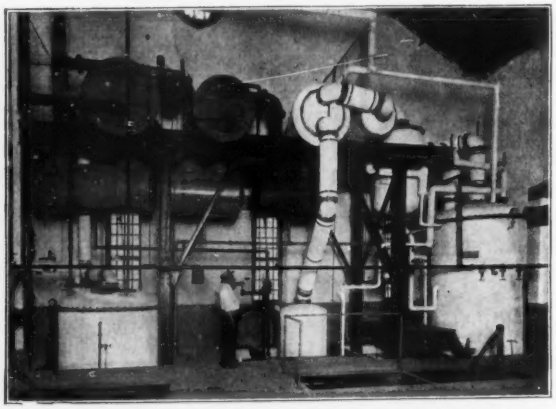

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REPORT OF THE SOAP ANALYSIS COMMITTEE—October, 1931

By M. L. SHEELY, *Chairman*

THE previous work of this committee under the direction of H. P. Trevithick has included a study of the unsaponified and unsaponifiable determinations as applied to soap. At the time this study was taken up it was the general opinion of all of the members of the committee that the method as written in the present official methods which were published in 1922 was unsatisfactory both from the standpoint of accuracy and simplicity. It was also the opinion that the well-known F. A. C. method for the determination of unsaponifiable in fats and oils should be readily adaptable for the same determination in soap and furthermore that the method could be modified to include a determination for unsaponified matter. With this in mind Mr. Trevithick's committee formulated a method based on the F. A. C. procedure modified to include an extraction for unsaponified matter and proceeded to conduct cooperative tests among the various laboratories represented. Two samples of soap were distributed, namely, a straight tallow soap and a tallow-rosin soap, and the members of the committee were requested to determine the per cent of unsaponified and unsaponifiable by the proposed new method and by the present published official method. The results of these tests were published in the July issue of *Oil and Fat Industries* and the general conclusions reached at that time were to the effect that the new proposed method was much more satisfactory and gave results in much closer agreement than the present official method. It was also the consensus of opinion that the new method was simpler and easier to handle by the average analyst.

A meeting of the committee was held during the fall meeting of the society last year and it was decided to write up the new method officially and present it to the Chairman of the Soap Section for approval. This was accordingly done but before submitting the report it was felt that it would be desirable to try out the proposed method for use on filled soaps as well as neutral products, the previous cooperative work having been conducted on neutral, unfilled soaps. Unfortunately serious difficulties were encountered with the method as written for filled soaps, especially those containing silicate of soda. As a result of these findings, two of the member laboratories were directed to work out a further modification of the new method in order to include all classes of soaps, if possible. This study was completed just prior to the spring meeting of the society this year and the report of the chairman at that time included this latter modification of the proposed method. As the procedure now stands it appears to be quite reliable and should be available for use on practically all types of soaps.

IN taking up the work of the committee, the chairman wishes to propose the following program for the coming year:

1—A further study of the new method for the determination of unsaponifiable and unsaponified matter in soap to include final cooperative tests among the various laboratories represented on this committee. This should definitely determine the reliability and accuracy of the new proposed method for all classes of soaps.

2—A further review of the present official methods for soap analyses with the view to making such modifications as are necessary from the viewpoint of experience with these methods in the past few years. Under this heading, it is proposed to request each of the members of the committee to go over the present official methods carefully with the view to suggesting such revisions as may be advisable at this time. It should be borne in mind by those cooperating in this work that it is not the desire of the society to overthrow any method which has generally been accepted by the industry unless it has been definitely indicated that the method is not reliable. Moreover, it is not desired to change any of the present methods for others which may be equally satisfactory unless such methods have been generally accepted and it is the consensus of opinion that the change should be made to conform to commercial practice.

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Oil Chemists' Meeting

(*From Page* 122)

On Friday afternoon, personally conducted visits to the various manufacturing plants of the Chicago district, particularly the stockyards plants, were open to those who could avail themselves of the opportunity. There was also a meeting of the governing committee of the Society at this time. A visit for members and guests, including ladies, to the Chicago Planetarium on Friday night completed the entertainment program of the meeting.

The entertainment especially provided for ladies included the visit to the Lever Brothers Company plant for all who desired to make the trip, and a bridge luncheon on Friday afternoon, October 30. While the number of ladies attending the convention from points outside of Chicago was small, those who were present reported a visit of much enjoyment.

The Chicago Local Committee in charge of the Meeting consisted of W. H. Irwin, *Chairman*, J. P. Harris, J. J. Vollertsen, A. W. Putland, L. M. Tolman, M. L. Sheely, and A. E. King. The Ladies' Entertainment Committee included Mrs. J. P. Harris, *Chairman*, Mrs. J. J. Vollertsen, Mrs. M. L. Sheely, Mrs. R. W. Perry, Mrs. L. M. Tolman, Mrs. A. W. Putland.

Exhibits

THE exhibits displayed in the Florentine room, where the sessions of the Meeting were held, attracted much favorable notice from those attending. Included among the exhibitors were:

Central Scientific Co., Chicago.
Wilson & Bennett Mfg. Co., Chicago.
The Skelly Oil Co., Chicago.
American Allied Active Carbon Co., Columbus, O.
Fred S. Carver, New York City.
The Emil Greiner Co., New York City.
A. Daigger & Co., Chicago.
W. M. Welch Co., Chicago.
Industrial Chemical Sales Co., Inc., New York.
The Laboratory Construction Co., Kansas City.
E. H. Sargen & Co., Chicago.
Merck & Co., Rahway, N. J.
Precision Scientific Co., Chicago.
Purina Mills, St. Louis, Mo.
Kewaunee Mfg. Co., Chicago.

The Central Scientific Company exhibited laboratory apparatus, much of it of their original design, including moisture ovens and Kjeldahl apparatus.

Wilson & Bennett Mfg. Co. displayed steel shipping containers of many varieties.

The Skelly Oil Co. showed samples of special petroleum solvents for fats and oils.

Fred S. Carver exhibited the Carver laboratory hydraulic press, equipped with specially designed apparatus for obtaining sample of pressed oil for laboratory determination of the percentage of free fatty acid in seeds.

The Emil Greiner Co., laboratory apparatus and glassware.

Industrial Chemical Sales Co. displayed products bleached with Nuchar and Suchar, activated carbons.

Merck & Co. exhibited Merck Chemicals, of standard laboratory, chemically pure and analyzed qualities.

Kewaunee Mfg. Co. exhibited furniture for chemical laboratories and fume-hoods.

Purina Mills, manufacturers of soy bean oil, created much interest in their exhibit, which was labeled "Sardines swimming in Purina soy bean oil," and which many visitors suspected of being gold fish swimming in a bowl of artificially colored glass. At any rate, the exhibit was successful in directing attention to Purina Mills as newcomers in the field of soy bean oil production.

Laboratory Construction Co. displayed their exceptionally well-designed line of Kjeldahl apparatus, distillation apparatus and electric heaters.

American Allied Active Carbon Company displayed their activated carbons for decolorizing oils and fats.

Other interesting displays of laboratory apparatus, glassware and chemicals were presented by *E. H. Sargent & Co., Precision Scientific Co., A. Daigger & Co., and W. M. Welch Co.*, all of Chicago.

Bowling Tournament

THE outstanding entertainment feature of the Meeting was the annual bowling tournament, which was held at the Bensinger Alleys, 235 South Wabash Avenue. This tournament brought out more contestants than any previously held by the Society. There were ten 5-man teams, eight 2-man teams and several individual bowlers entered into the competition. Some very fine scores were recorded.

The Nuchar Challenge Trophy Cup was won by the Amaizo team of the American Maize Products Company of Roby, Indiana. This is the second year in succession that the challenge trophy has been won by the Amaizos, giving them a second leg on the cup, which will become their permanent possession if they succeed in winning it just once more, without an intervening win by some other team.

The high single game prize was won by the Swift Vream team, headed by W. H. Irwin, *Chairman* of the Chicago Meeting Arrangements Committee. President Richardson was also member of a prize-winning team, his Procter and Gambles from Ivorydale annexing second team prize. Third team prize went to the Swift Premiums and fourth to the Swift Vreams, both of Chicago.

FIRST 2-man team prize went to Meyers and Boskovitz of American Maize Products Company, second to Uhle and Ruby of Swift and Co., Chicago. M. Dugan of Swift and Co., Chicago, distinguished himself by annexing the surprise handicap prize as well as the high single game prize. The individual 3 game high-score prize was tied for in a dead heat between C. A. Renhart of Swift & Co., and W. Meyer of American Maize Products Co. It is apparent that some of the members will have to brush up on their home alleys in order to break up this apparent Swift-Amaizo monopoly of prizes. The tournament was ably managed by John P. Harris, of Nuchar fame, assisted by W. H. Irwin and members of the Swift and Company laboratory office staff.

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Whale Oil

(*From Page* 127)

The importance of the situation may be appreciated when it is considered that the matter is at present receiving the attention of the Economic Committee of the League of Nations. The committee, with the aid of authorities on marine life, has drawn up a set of regulations proposed to offer protection to the whale supply of the world. These regulations are now receiving the attention of the interested countries. In this connection a hearing was held before a special committee of the United States Senate on March 20, 1931. At this hearing such authorities as Dr. Lewis Radcliffe, Deputy Commissioner of the United States Bureau of Fisheries; Dr. Remington Kellogg of the Smithsonian Institution; Dr. T. S. Palmer, United States Biological Survey; and Dr. A. Brazier Howell, Executive Secretary of the Council for the Conservation of Whales, all expressed fear for the future whale supply if the present rate of killing was not decreased.

In view of the condition of the world market for fats and oils, it does not seem that the need for whale oil is so great that the supply of whales should be endangered. On the other hand, the whaling industry can be of real service to the world by controlling its activities, on the basis of impartial biological data, to a point where killings will not exceed natural replacements. In this way the world will be assured a sizable supply of whales, and fat and oil markets will be provided with a uniform supply of a useful oil upon which it may depend.

—o—

Soap Analysis

(*From Page* 133)

3.—*Determination of Rosin in Soap.* For some time there has been considerable doubt in the minds of soap chemists as to the reliability of the Wolff method for the determination of rosin in soap. This doubt is justified alone on the basis of the fact that a blank of from 3 to 5 per cent may be obtained by this method on a soap known to contain no rosin. Moreover it has been found in some cooperative work that has already been done that neither the Wolff nor the Twitchell methods for the rosin determination give accurate results, the latter being more nearly correct with all percentages of rosin up to approximately 15 per cent and the Wolff method being very much in error with low percentages of rosin and approximately correct with higher percentages of rosin, for instance, above 20 per cent. It is hoped that during the coming year the various soap laboratories will give some thought to new or modified methods for the rosin determination in soap and that some progress will be made towards making this determination more reliable.

It is also our hope that as many laboratories as possible will collaborate with us in the general review of the methods including the final check on the determination of unsaponified and unsaponifiable matter. The committee membership includes A. K. Church, L. M. Roeg, W. A. Peterson, R. B. Trusler, C. P. Long, W. D. Richardson, W. H. Burkhardt, M. H. Ittner, H. P. Trevithick, F. W. Smither, M. L Sheely, *Chairman.*

—o—

Sunflower Oil

(*From Page* 131)

It is our observation, however, that a very insistent effort will be made for a greater development of soy bean oil in this country, and to that end the soy bean growers are organized to put on a very interesting exhibit at the Century of Progress Chicago World's Fair in 1933, where space is arranged for the exhibit and display of all phases of the bean industry, developing the producing, marketing the oils as they relate to the paint industry and the arts, as well as the many food products which are being made from soy beans. There is that same sectional interest in the development of this plant and its product as obtains in the corn oil industry in a similar way.

—o—

Total shipments of Indian peanuts from January 1, 1931, to October 1, from Bombay and Madras, amounted to 709,300 tons of which 73,900 tons went to the United Kingdom, and 635,400 tons to the continent. This compares with shipments during the same period of last year of 599,200 tons, of which 39,500 tons went to the United Kingdom and 559,700 tons to the Continent.

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Positions Wanted

Position Wanted by soap maker with more than thirty years' experience, making all kinds and grades of castile, milled, laundry and olive oil soaps, artificial mottled soap, flakes, chips and powders. Can produce soap chips, flakes and powder without use of drying machine in 5 to 8 hours in one operation from raw material to finished product. Address Box 825, care *Soap*.

Wax and Soap Maker—Nine years practical experience manufacturing liquid, paste and dry bright waxes, liquid and soft soaps, polishes, cleaners and disinfectants. Capable of managing production. Desires position where honest efforts are appreciated. Moderate salary. Address Box 826, care *Soap*.

Soapmaker—Thirty years old, married, able to manufacture high filled laundry soaps, blue mottled and soft soaps, toilet soaps milled and cold made; speaks Spanish, German and English. Twelve years practical experience. Address Box 814, care *Soap*.

Manager—Man experienced in management of soap plant both as to manufacture and selling seeks new position. Address Box 816, care *Soap*.

Salesman—Man with experience in sale of insecticide raw materials to exterminators, manufacturers, and jobbers in New York and New Jersey area, wishes new connection. Address Box 817, care *Soap*.

Salesman—Man well acquainted in the soap and allied trades desires position where his knowledge of the field and business will be of value. Desires to handle line of soap plant equipment or raw materials for a well known house. Knows the soapmakers from coast to coast. Address Box 818, care *Soap*.

DECIDE NOW

While Prices Are Low

WITH

CONSOLIDATED REBUILT MACHINERY

SPECIALS

1—Houchin-Aiken 3000 lb. Perfection Crutcher.
4—650 gal. Dopp Jacketed Kettles.
1—Houchin-1000 lb. Mixer, twin shaft.
1—Blanchard 10-A Mill, with feeder.
1—Soap Chip Dryer, with chilling Rolls, 1200 lb.

1—Jones A Automatic Soap Press.
1—Two-way Soap Cutting Table, hand.
1—1200 lb. Hand operated Slabber.
1—Houchin-Aiken 4″ Plodder.
1—Swenson Single Glycerine Evaporator.
1—Strum 1200 lb. Horizontal Jacketed Crutcher.
1—Dopp 1500 lb. Jacketed Crutcher.
3—Granite 3 roll Mills, 12″ x 24″.
6—Soap Chippers, 20″, 24″, 30″.
20—Filter Presses, 12″ x 12″ to 42″ x 42″.
1—No. 0000 Raymond Pulverizer.
1—No. 4 J. B. Hammer Mill.
1—1000 gal. Day Jumbo Jacketed Mixer.
16—Horizontal Mixers, 20 gal. to 500 gal.
35—Dopp Jacketed, Agitated Kettles, 50 gal. to 200 gal.—with spiral, bridge and double motion agitators.
100—Steel and Cast Iron Jacketed and Agitated Kettles, 50 gal. to 5000 gal.

MISCELLANEOUS:—Soap Frames, Copper and Aluminum Jacketed Kettles, Pony Mixers, Collapsible Tube Fillers, Tanks, Mixers, Labelers, Pumps, Boilers, etc.

Send for latest Printed Bulletins.

CONSOLIDATED
PRODUCTS COMPANY, Inc.

15-21 Park Row, N. Y. C. BArclay 7—0600

We buy your idle Machinery—separate items or entire plants.

Persulphate of Ammonia
Persulphate of Potash
Caustic Potash
Caustic Soda

JOSEPH TURNER & Co.
19 CEDAR STREET
NEW YORK CITY

TRADE B MARK

Barrett Standard CHEMICALS

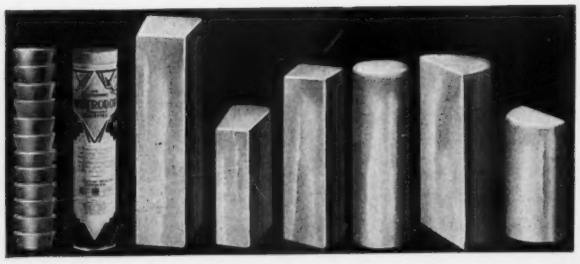
In supplying manufacturers in the soap and disinfectant industries with tested chemicals, it is a matter of pride with us that Barrett service has not stopped with filling orders. Frequently these manufacturers come to us for technical advice on the use of Barrett Standard Chemicals—and frequently we are able to present suggestions of real value.

Modern laboratories and a carefully selected and trained technical staff make it possible for us to cooperate fully in the solution of production problems. Your inquiries will receive prompt attention.

CRESOLS CRESYLIC ACIDS
TAR ACID OILS AMMONIAS

The Barrett Company
40 Rector Street, New York, N. Y.

WORLD'S LARGEST PRODUCERS of DEODORIZING BLOCS



OFFER YOU THEIR FAMOUS QUALITY
Under Your Private Label—

U. S. AIR CONDITIONING BLOCS outsell all other blocs because they are moulded, hard and uniformly perfumed. Sizes and shapes (as illustrated) to fit any containers. Odors to meet current needs. Packed for you under your private label.

Handsome perforated metal containers in White Enamel, Porcelain, Oxidize or Nickel-Plate with Jobbers' nameplate.

Also NEUTRODOR URINAL BLOCETTES individually wrapped in cellophane and AEROZONE DEODORIZING CRYSTALS—both packed in beautiful lithographed tins.

Also HIK BRAND—a new line of Deodorizing Blocs and Crystals priced so low that you can meet any competition.

Write for new price bulletin on Deodorizing Blocs, Liquid Soap, Soap Dispensers, etc. New catalog on request.

U. S. SANITARY SPECIALTIES CORP.
435-41 South Western Ave. Chicago, Illinois

"FILMASEAL"
Trade Mark Reg. Patents Pending

Airtight . . .
Leakproof . .
Tamperproof .

A transparent film sealed to top of container
Plus our continuous thread screw cap
Film must be removed to reach contents
Used with standard C. T. bottles and jars
Automatic application . . . no decrease in output
Adapted to large scale production
One of our films will serve your purpose

FERDINAND GUTMANN & CO.
Bush Terminal No. 19 · Brooklyn, N. Y.

SANISEAL METAL MILK CAPS . . . DISTILLED WATER CAPS
CROWN CORKS
CONTINUOUS THREAD CAPS . . . SPECIAL PURPOSE CAPS

Closure Specialists Since 1890

Say you saw it in SOAP!

Chemist—Fully experienced in oils, fats, and soaps, and capable of handling executive work, desires change. Address Box 819, care *Soap*.

Superintendent—Man with twenty years' experience and fine record in manufacture of soaps, textile soaps and specialties, desires new connection as plant manager or assistant. Technical education and practical experience combined. Address Box 820, care *Soap*.

Soap Maker—A man capable of taking full charge of plant making all types of soap, including liquid and oil soaps, desires new connection. Thirty years' experience. Best references. Box 821, care *Soap*.

Soap Maker—With years of actual experience in manufacturing all grades and kinds of soaps and soap products. Address Box 822, care *Soap*.

Need Help? For all types of employes with chemical experience and training, ask us. Everybody for the chemical process industries from the president to the office boy, including office, sales, plant, laboratory, and expert advisors. Quick action. Careful selection of applicants based on full information. Any location. Bureau of Employment of the Chemists' Club (Agency), 50 E. 41st Street, New York.

Positions Open

Soapmaker—Practical soap chemist with full knowledge of liquid and oil soaps and disinfectants, for medium size plant in Middle West. State age, experience, and salary expected in your first letter. Address Box 827, care *Soap*.

Wanted—A fast growing soap manufacturer in the Middle West has an opening in its organization for a mechanical engineer to take complete charge of mechanical equipment in plant. This man must have a number of years experience in the soap plant. Address Box 823, care *Soap*.

Salesmen Wanted—Brushes, janitor supplies, sanitary specialties, soaps, chemicals for open territories. We manufacture and distribute to the largest users. Liberal commissions, exclusive territory. References exchanged. J. S. Costello & Son, 1108 Pine St., St. Louis, Missouri.

Agent Wanted—American importer desires to arrange with American house with sales staff calling on soap, shaving cream, pharmaceutical, etc., manufacturers for agency for a well-known

SPECIALS

1—Proctor 4 fan Automatic Soap Clip Dryer.
1—Sargent 3 fan Soap Chip Dryer.
4—Steel watercooled Roller Mills, 9x24", 9x30", 12x30", 16x40".
2—Houchin Aiken Empire State Foot Presses.
1—Houchin Aiken Para block Press.
20—Standard 1200 lb. Soap Frames.
6—Mulford & Richards Para Block Presses.

SOAP MACHINERY BARGAINS

1—Soap Chip Dryer, with Chilling Rolls, 1500 lbs. capacity.
3—Dopp & Houchin Vert. 1500 and 3000 lb. Crutchers.
5—Foot Presses for Soaps and Deodorizing Blocks.
2—Jones & Ralston Automatic Presses.
8—Dopp Kettles, Open and Closed.
1—Ernest Scott Glycerine single effect Evaporator, complete with vacuum pumps.
8—Cast Iron 12, 18, 24, 30, 36 inches square, Shriver and Sperry Filter Presses.
50—600 and 1200 lbs. capacity Frames.
2—3 roll Huber and H. A. Stone Mills.
1—4 roll Rutchman Stone Mill.
4—Nos. 1, 2 and 3 Meade Mills.
1—10A Blanchard Mill.
4—6", 8" and 10" Single and Twin Screw Plodders.
2—Broughton Mixers.
1—American Soap Wrapping Machine.
2—Slabbers, 600 and 1200 lbs. Hand and Power Driven.
10—Rotary Soap Pumps—1 to 4 inches.

Blowers—Exhaust Fans—Engines—Steel and Wood Tanks—Pumps—Storage Tanks—Motors—Conveyors—Elevators—Copper, Aluminum and Iron Kettles—Etc.

Send for Complete List!

We buy and sell from single items to complete plants

STEIN-BRILL CORP.

25 Church Street **New York City**

PHONE! **WRITE!**

Phones—BArclay 7—4850-1-2

Agents for RODGERS
PASTE and POWDER FILLERS
CLOSERS and CRIMPERS
TUBE CLIPS — CONVEYOR TABLES
Send for Illustrated Catalog

probably—

You dare not change the odor effect of your insecticides, waxes, polishes and sprays.

YOU DON'T HAVE TO

yet—

You would like to save 40% to 70% of your perfuming cost—a very worth-while saving.

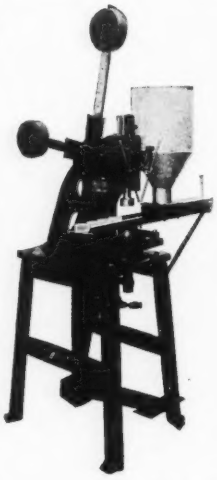
It Can Be Done!

Let us show you how simple it is

John Powell & Co., Inc.

114 East 32nd St. N. Y. C.

HOUCHIN



Machine-Made
DEODORIZING BLOCKS
Sell Best!

Blocks made with this press, by the new cold pressed method, sell better and cost much less to make. Save 5% of your raw material, cut labor, and make a smooth, even, deodorizing block that will please your customers much more than the old style, irregular blocks. Complete cost details and manufacturing suggestions on request.

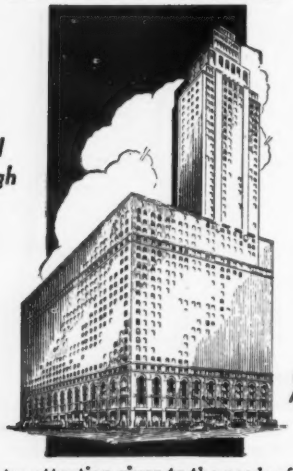
Let us make some sample cakes with your own material.

HOUCHIN MACHINERY COMPANY
HAWTHORNE NEW JERSEY

SOAP MACHINERY

IN CHICAGO

World's Tallest Hotel 46 Stories High



LEONARD HICKS
Managing Director

The extra attention given to the needs of guests will favorably impress you. Nearest to stores, offices, theatres and railroad stations. Each guest room is outside with bath, circulating ice water, bed-head reading lamp and Servidor. Housekeeper on each floor. Garage facilities.

2500 ROOMS $3.00 UP

MORRISON HOTEL

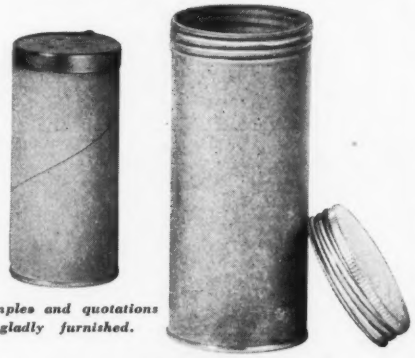
Madison and Clark Streets CHICAGO

INCREASE SALES!

by packaging or shipping your Products in

CIN-MADE

FIBRE CANS and TUBES



Samples and quotations gladly furnished.

THE CINCINNATI MAILING DEVICE COMPANY
294 EGGLESTON AVE.
CINCINNATI, OHIO

Say you saw it in SOAP!

German superfatting and foam creating product. Tried and established product abroad. Finest of its kind. Opportunity for essential oil house selling nationally. Communicate with Box 813, care *Soap*.

Wanted—Salesmen to sell power laundries, realty, creameries, institutions, others—cleaning products. Territories open. Address Westinghouse Chemical Co., 624 Tinton Ave., New York City.

Miscellaneous

Wanted—A complete experimental soap plant in good condition. Price must be cheap. Should include mill, plodder, press, motors, etc. One which has been in use recently and can be set up at once. Address with full details. Box 824, care *Soap*.

For Sale—Foot press fully equipped to stamp one ounce cakes, together with packing boxes, trade name, extra four ounce die. Address Box 811, care *Soap*.

Chemicals Jobber wants additions to his line of Chemicals, Chemical Specialties, etc. Answer in detail. Address Box 812, care *Soap*.

For Sale—Pumacite or volcanic ash, milled and sized to any degree of fineness desired. It is very white and of exceptional quality. We can supply any demand at attractive prices. Low freight rate to seacoast points. Samples and particulars sent on request. Acme Silica Corp., Ltd., Room 366, Habersfeld building, Bakersfield, Calif.

We Buy waste products, by-products, sludges, residues, etc. Chemical By-Products Division, New Jersey Color Company, 221-233 Suydam Avenue, Jersey City, N. J.

Cash for Surplus—Specialties, Chemicals, Soaps, Oils, Waxes, Gums, Dyes, Solvents, Metals, By-Products, Residues. Confidential services when required. Chemical Service Corp., 36 Park Row, New York, N. Y.

Formulas and expert advice. I will revise your process, work out processes for new products, install and put into operation new equipment. Expert in all kinds of soaps, liquid soaps, scrub soaps, mottled and artificial mottled soaps, etc. Many years' experienced in field. Have at my disposal formulas of late J. A. Kyle who for 35 years was connected with several of the largest American soap manufacturers. W. E. Wilkinson, 174 Vreeland Avenue, Rutherford, N. J., or western agents, A. E. Starkie & Co., 1 No. Crawford Avenue, Chicago.

We Manufacture

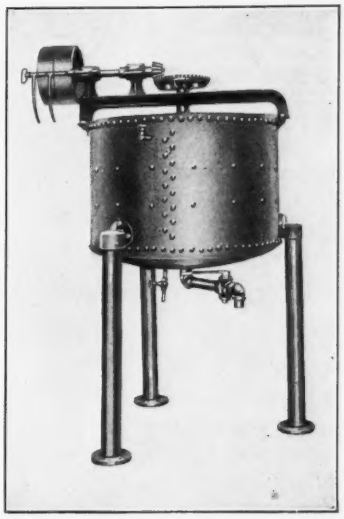
For The Trade ONLY

Liquid Soap Base
Auto Soaps
Potash Oil Soap
Shampoo
U.S.P. Cresol Compound
Coal Tar Disinfectants
Liquid Soap
Pine Oil Soap
U.S.P. Green Soap
Shampoo Base
Pine Oil Disinfectants
Insecticides

Ask for samples of these specialty bulk products!

HARLEY SOAP CO.

2852 E. Pacific St. Philadelphia



SHOWING a very practical machine to reduce Liquid Soap Base or Concentrates to any percentage wanted by the mere addition of heat, water and a little power.

Provided with hotter steam, liquid soap can be made from raw materials.

Cold Process soap making equally feasible.

No expert knowledge is required to reduce soap bases to thin liquids. Save costs by adding the water yourself.

A slow motion machine, but it does the work effectively and at little cost.

Built in six different sizes and capacities.

Huber Machine Co.

262 46th St. Brooklyn, N. Y.

Say you saw it in SOAP!

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in *Soap.* It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on the following pages, for page numbers. *"Say you saw it in SOAP."*

ADHESIVES

Grasselli Chemical Co.
Mechling Bros. Chemical Co.
National Adhesives Corp.
Philadelphia Quartz Co.
Standard Silicate Co.

ALKALIES

Columbia Alkali Co.
Diamond Alkali Co.
Dow Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

Antoine Chiris Co.
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Benj. French, Inc.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
George Lueders & Co.
Magnus, Mabee & Reynard
Merck & Co.
Monsanto Chemical Works
Newport Chemical Works
Polaks Frutal Works
Schering Corp.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

BULK AND PRIVATE BRAND PRODUCTS

Alpine Chemical Co.
Baird & McGuire, Inc.
Chemical Compounding Corp.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Harley Soap Co.
Koppers Products Co.
Kranich Soap Co.
Edgar A. Murray Co.
Palmer Co.
John Powell & Co.
Ratin Laboratory
Geo. A. Schmidt & Co.
Stevens Soap Corp.
U. S. Sanitary Specialties Corp.
White Tar Co.
Windsor Wax Co.

CANS

Continental Can Co.
Metal Package Corp.
William Vogel & Bro.

CHEMICALS

Columbia Alkali Co.
Diamond Alkali Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Works
Newport Chemical Works
Niagara Alkali Co.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Joseph Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid oil, etc.)

Baird & McGuire, Inc.
Barrett Co.
Koppers Products Co.
Monsanto Chemical Works
White Tar Co.

CONTAINERS

(See also Steel Containers)

Bemis Bros. Bag Co. (Bags)
Cincinnati Mailing Device Co. (Paper Cans)
Sun Tube Corp. (Collapsible Tubes)

DECOLORIZING CARBONS

Darco Sales Corp.
Durkee Famous Foods
Industrial Chemical Sales Corp.

DEODORIZING BLOCK HOLDERS

Eagle Soap Corp.
Palmer Co.
U. S. Sanitary Specialties Corp.
William Vogel & Bro.

ESSENTIAL OILS

Antoine Chiris Co.
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
George Lueders & Co.
Magnus, Mabee & Reynard
Polaks Frutal Works
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

LABORATORY APPARATUS

Central Scientific Co.
Laboratory Construction Co.

(*Continued on Page* 144)

Consulting Chemists and Engineers

Specializing in Soaps, Disinfectants, Insecticides, Polishes, Etc.

FOSTER D. SNELL, A. M. Ph. D.
130 CLINTON ST., BROOKLYN, N. Y.
Consulting Chemist
RESEARCH ANALYSIS CONSULTATION OPERATION
SOAP, POLISH AND SPECIALTIES

Samuel P. Sadtler & Son, Inc.
Consulting Chemists and Analysts
210 S. 13th St. Philadelphia
Specializing in
OILS - SOAPS - POLISHES - ETC.
Analyses—Practical Formula Development

"IF YOUR PROBLEMS HAVE ANY CONNECTION WITH SOAP oils, finishing materials, cosmetics, polishes or insecticides, we guarantee to solve them or
OUR SERVICE COSTS YOU NOTHING."
Illinois Chemical Laboratories, Inc.
1164 W. 22nd Street Canal 7313-7314
CHICAGO

Charles H. LaWall Jos. W. E. Harrisson
LaWall & Harrisson
Chemists
Analytical—Consulting—Research
Phenol Coefficients
214 S. 12th St. Philadelphia

BUREAU OF CHEMISTRY
of the
New York Produce Exchange
H. P. TREVITHICK, Chief Chemist
Soaps, Vegetable Oils, Glycerine, Shellac
Rooms F-12-16 2 Broadway
Produce Exchange Bldg. New York, N. Y.
Member Association of Cons. Chemists and Chemical Engineers

HOUSTON LABORATORIES
F. R. ROBERTSON, Ph.C.
Analytical and Consulting Chemist
1206½ Preston Avenue HOUSTON, TEXAS
P. O. Box 132

Specialist in
OILS, FATS, WAXES
CHARLES V. BACON
Chemical Engineer
3 Park Row New York

ALAN PORTER LEE
Engineer
SOAPMAKERS' PROCESSES
OIL EXTRACTION—REFINING
VACUUM BLEACHING—HYDROGENATION
FATTY ACID AND GLYCERINE TECHNIC
Design, Construction, Operation
Reports, Appraisals
136 Liberty St., New York, U. S. A.

CONSULTING CHEMISTS AND ENGINEERS
offering their services to manufacturers of soaps, disinfectants, household insecticides, polishes, cleansers, etc., should keep themselves before the entire industry regularly through the use of space in this department of SOAP.

SEIL, PUTT & RUSBY, INC.
16 East 34th Street, New York City
Specialists in the analysis of
Essential and Fatty Oils
Aromatic Chemicals
Pyrethrum Sprays and Powder
TELEPHONE AShland 4—4343

PEASE LABORATORIES, INC.
39 West 38th Street, New York City
Chemical, Bacteriological, Sanitary and Physiological Investigations
Consultants on Technical Advertising, Literature and Labels

Skinner & Sherman, Inc.
246 Stuart Street, Boston, Mass.
Bacteriologists and Chemists
Disinfectants tested for germicidal value of phenol coefficient by any of the recognized methods.
Research—Analyses—Tests

Say you saw it in SOAP!

RAW MATERIAL and EQUIPMENT GUIDE

(*Continued from Page* 142)

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MACHINERY

Alsop Engineering Co. (Liquid mixing, filling and storage)
Edouard Battaille (Oil Hydrogenation)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
Mixing Equipment Co. (Portable Mixers)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Co. (Dryers)
Solutionizer Co. (Sudsing Equipment)
Sowers Mfg. Co. (Crutchers)
Stokes & Smith Co. (Packaging Machinery)
Sprout, Waldron & Co. (Conveyors, Mixers, etc.)
Wurster & Sanger, Inc. (Soap, Glycerine, Oil, Hydro plants)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Ferdinand Gutman & Co.
Williams Sealing Corp.

OILS AND FATS

Emery Industries, Inc.
Spencer Kellogg & Sons
Leghorn Trading Co.
Newman Tallow & Soap Machinery Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Monsanto Chemical Works
Niagara Alkali Co.
Solvay Sales Corp.

PERFUMING COMPOUNDS

Antoine Chiris Co.
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Evergreen Chemical Co.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
E. M. Laning Co.
George Lueders & Co.
Magnus, Mabee & Reynard
Polaks Frutal Works
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PYRETHRUM PRODUCTS

(Insect Flowers, Powder and Pyr. Ext.)

J. L. Hopkins & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
John Powell & Co.

RAW MATERIALS, MISCELLANEOUS

Franks Chem. Prods. Co. (Stearates)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chem. Sales Corp. (Chalk)
Merck & Co. (Lanolin and Chlorophyll)
National Adhesives Corp. (Adhesives)
Rohm & Haas Co. (Insecticide Base)
Pylam Products Co. (Lathering Agent)

SOAP COLORS

Fezandie & Sperrle
Pylam Products Co.

SOAP DISPENSERS

Bobrick Mfg. Co.
Clifton Chemical Co.
Eagle Soap Corp.
Palmer Co.
U. S. Sanitary Specialties Co.

SODIUM SILICATE

Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Electric Sprayit Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
Potato Implement Co.
William Vogel & Bros.

STEEL CONTAINERS

Niles Steel Products Co.
John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

TRI SODIUM PHOSPHATE

American Cyanamid Co.
Bowker Chemical Co.
Grasselli Chemical Co.
Victor Chemical Works
Warner Chemical Co.

Uniform Material Adjusted to Meet Your Specific Needs

MECHLING'S SILICATE OF SODA

MECHLING BROS. CHEMICAL COMPANY

PHILADELPHIA **CAMDEN, N. J.** **BOSTON, MASS.**

BEMIS WATERPROOF BAGS

Here are six of the many reasons why every year sees more and more Soap Manufacturers shipping dry soap in Bemis Waterproof Bags —

Waterproof	Close quickly
Siftproof	Save storage space
Cost little	Reduce tare weight

Write for samples and prices today.

BEMIS BRO. BAG CO.

605 S. Fourth Street, St. Louis, Mo.
5108 Second Ave., Brooklyn, N. Y.

037R2

SOAP POWDER

FLUFFY AND HEAVY

Scouring Powder
and
Detergent

Packed in barrels or kegs.
In bulk to the trade.

STEVENS SOAP CORP.

200 Sullivan St., Brooklyn, N. Y.

CUmberland 6—3747

TWITCHELL

Liquid Kontakt

for
High Grade
Fats

Kontakt D. P.

for
Low Grade
Fats

THE TWITCHELL PROCESS COMPANY

CINCINNATI **OHIO**

PROCESS

Say you saw it in SOAP!

STEEL DRUMS

That are built to last!

30-55-110 gal. sizes

The BEST
Containers for
LIQUID SOAPS
DISINFECTANTS
CLEANSERS
ESSENTIAL OILS
VEGETABLE OILS
CHEMICALS
GLYCERIN
ETC.

Black, Galvanized, Tinned

Sturdy and long lasting, the Trageser heavy duty steel drum will be carrying your materials to market long after cheap containers have found the junk pile. Order a sample drum.

JOHN TRAGESER STEAM COPPER WORKS
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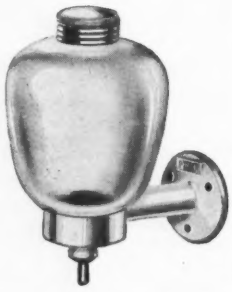

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Adjacent to Milwaukee

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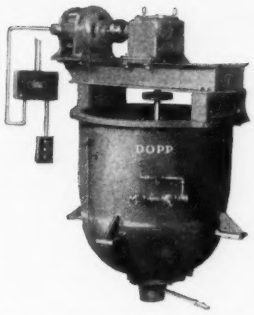

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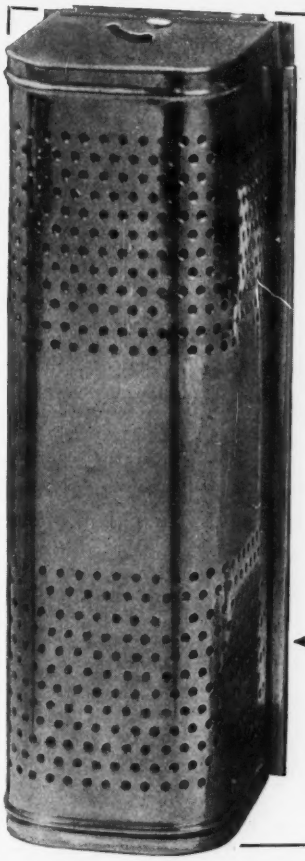

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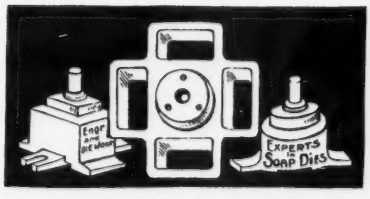

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